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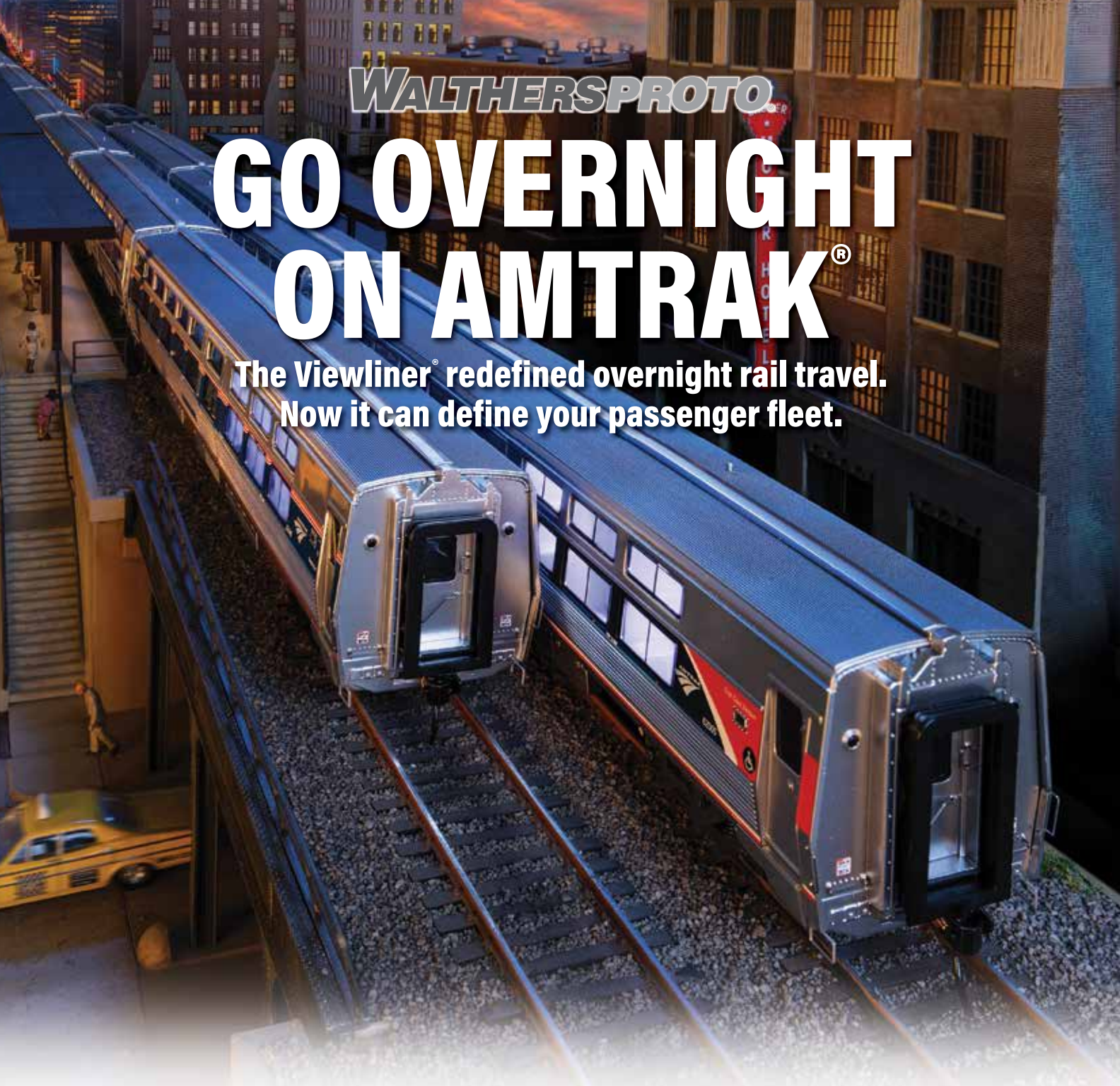

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On the cover: Train 95 heads northbound on Brent Johnson's Clinchfield Carolina Division HO scale layout.
Dan Munson photo

Go online and subscribe to receive *Model Railroader* issues packed with how-to tips and techniques for beginners to advanced modelers, news and product reviews, and inspiring layouts. www.trains.com/mrr/subnow

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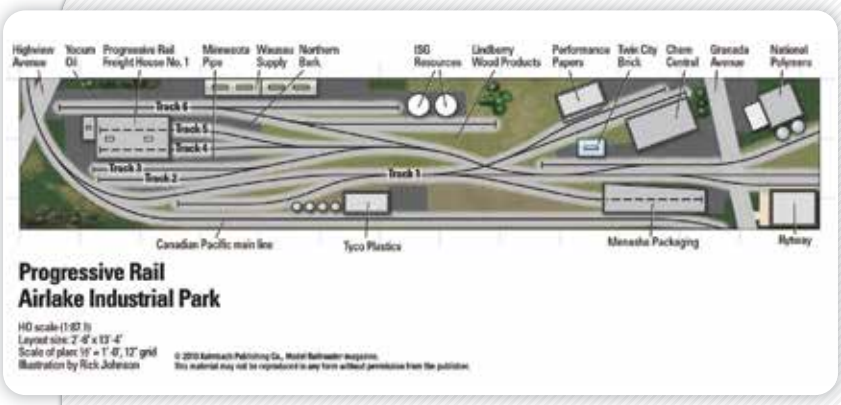

Finding that next project

For many, it's time to get back to model railroading. The weather is turning colder, and an indoor project sounds good about now.

If you've been contemplating building a model railroad, now's a good time to get started. It's still warm enough outside to do the sawing and drilling in the driveway, which will set you up nicely for the quieter tasks indoors when the weather starts to turn. But you're going to need a plan! Check out Lucas Iverson's "Track plan ideas on a budget" on Trains.com to get started.

Apps to add to model railroading fun

Editor Eric White polled online experts for ideas on the best model railroading apps. In addition to throttle apps such as WiThrottle and Engine Driver (for Apple and Android, respectively), Eric got a line on other aspects of the hobby that might be improved with a little help from your phone.

From apps that help add interest to model train operations to those that help you build better models or a layout, check out "Useful model railroading apps" on Trains.com.

Sand Creek wrapping up

One of our longest-running projects, the Sand Creek portion of David Popp's Olympia logging series, is coming to a close. The most recent episodes cover the installation and detailing of the Sand Creek Depot.

You'll learn more about the Sand Creek and Olympia projects in upcoming *Model Railroader* and Trains.com features. Check it out online today!

MR&T boxcar roundup

Between 2019 and 2024, Model Railroader offered a number of custom-decorated boxcars that depicted rolling stock from our staff railroad, the Milwaukee, Racine & Troy.

These cars in HO and N scale allowed readers to add a bit of the MR&T to their home layouts, and to make sure all eras were covered, the cars depicted MR&T rolling stock from the 1930s through the present day. Read Cody Grivno's story on Trains.com.

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By Eric White

Expanding the consist of *Model Railroader*

September has always seemed to me to be a time of beginnings. We all remember going back to school after the summer break, starting in a new grade, with new teachers and maybe new classmates.

Because of this, I thought September would be a good time to introduce some new content to the pages of *Model Railroader*. In this issue, you'll find two new types of stories: the Behind the Scenes column from David Popp, and the *Model Railroad Planning* article Clinchfield's Carolina Division.

Now you might say, *Model Railroad Planning* isn't new! That's true. *Model Railroad Planning* started in 1995 as a special issue of *Model Railroader*, what we in the business call a Special Interest Publication, or SIP. In the magazine industry, SIPs (pronounced sips around the office) are a way to offer readers specialized content that may be a bit outside the normal type of story in a magazine, or might focus on a specific area.

Model Railroader has had two very successful SIPs. In addition to *Model Railroad Planning*, we've been producing *Great Model Railroads* since 1991. While both have done well for both the company and readers over the years, the changing landscape of the media industry meant we had to make some changes.

That's why we're bringing *Model Railroad Planning* content into the regular *Model Railroader* lineup of stories. Every month, you'll find a story with the *Model Railroad Planning* banner. And just like when it was its own special issue, Tony Koester will be the editor of these stories. This was part of the plan when we made him our consulting editor.

Tony goes into more detail about his role in this project in his Trains of Thought column this month. We're excited to continue to offer these stories.

Behind the Scenes is a new column written by the editors and other staff members here at *Model Railroader* and Trains.com. We started off with David Popp, director of Trains.com. You'll also hear from me, Cody Grivno, Tony, Pelle Søeborg, Lou Sassi, Larry Puckett, and maybe some of the other people called out in the masthead at the bottom of the page.

We're all interested in model trains, and full-sized trains, and we'll share updates on our personal projects, as well as things we've seen and done recently. We hope you'll find the new stories enjoyable.

Then, in November, we'll be bringing some of the usual *Great Model Railroads* content into *Model Railroader*. We're planning four exceptional layout visit stories for you. We plan to make this a regular November feature.

All of these changes are designed to keep the content of *Model Railroader* fresh, and to give readers the kind of content they've been asking for. As the world's largest circulation model train magazine, we know we have a wide audience with varied interests and skill levels. We hope these stories will inform and entertain a broader swath of the members of what is still the world's greatest hobby!

Model Railroader

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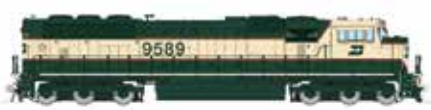
N scale

Electro-Motive Division GP38-2 diesel locomotives. These limited-edition Milwaukee, Racine & Troy four-axle road locomotives are the latest additions to the Trains.com Store. The N scale models, produced by Atlas Model Railroad Co., are decorated for *Model Railroader*'s freelance staff layout and feature an ESU LokSound V5 sound decoder; a factory-applied air horn, snow plows, and radiator fans; and body-mounted Accumate couplers. The diesels, available in two road numbers, are painted in the MR&T's Amtrak Blue and Reefer White paint scheme that was used from 1989 through 2003. The GP38-2 locomotives are priced at $234.95 each. Trains.com Store, shop.trains.com

HO scale locomotives

- **General Electric AC4400CW diesel locomotive.** CSX, Denver & Rio Grande Western, Ferromex, Kansas City Southern, Montana Rail Link, Southern Pacific, *Transportación Ferroviaria Mexicana*, and Union Pacific. Three road numbers per paint scheme. Detailed cab interior, wire grab irons, and Celcon handrails. Minimum radius, 18"; recommended radius, 22". Direct-current model with 21-pin NEM connector, $269.99; with SoundTraxx Tsunami2 sound decoder, $369.99. Athearn Trains, 800-338-4639, athearn.com



- **Electro-Motive Division SD70MAC diesel locomotive.** Burlington Northern (executive scheme), Alaska RR (2004+ and 2023+ 100 Years schemes), BNSF Ry. (2007+ executive scheme patchout with post-2005 herald and 2016+ H3 SD70MACe rebuild), Colorado Pacific RR (2023+), CSX (2003+ SD70AC in YN3 scheme, 2023+ SD70AC rebuild in YN3 with CSX.com herald, and 2024+ SD70AC rebuild in "We Are One" scheme), Kansas City Southern (2016+ SD70MAC rebuild), and Metra (2023+ SD70MACH in blue, black, and orange and RTA tribute schemes). One to four road numbers per paint scheme. Railroad- and era-appropriate Positive Train Control antennas, where appropriate; detailed cab interior; full lighting package, including track lights, step lights, and walkway lights; heavy, die-cast metal frame; and metal grab irons and knuckle couplers. Direct-current model, $249.95; with ESU LokSound sound decoder and MoPower capacitor, $359.95. Rapido Trains Inc., 905-474-3314, rapidotrains.com

- **General Electric P32AC-DM diesel locomotive.** Metro-North (1983 heritage; America 250; Conrail, New York, New Haven & Hartford [green-and-gold and McGinnis], and New York Central heritage; employee tribute; silver with blue stripe; and current schemes) and Amtrak (phase 3 "fade" and phase 3 Empire Service schemes). One to three road numbers per paint scheme. Dual-mode underbody components; Krupp-MaK high-speed bolsterless trucks with third rail shoe detail; nose and rear head-end power plugs; wire grab irons; and operating headlights, ditch lights, marker lights, and step lights. Suggested minimum radius, 18". Direct-current model, $239.95; with ESU LokSound sound decoder and MoPower capacitor, $359.95. Rapido Trains Inc., 905-474-3314, rapidotrains.com

HO scale freight cars

- **GATC 2600 Airslide covered hopper.** General American Transportation Corp. (Anheuser-Busch Inc. [late 1970s+]; Gulf, Mobile & Ohio [1970s+]; Multifoods [1966+]; and Staley [early 1990s+]), Missouri-Kansas-Texas (mid-1970+), Missouri Pacific (1958+), Norfolk & Western (Primed for Grime, 1970s+), Northern Pacific (1965+), Southern Pacific (1977+), and Union Pacific (with Missouri Pacific reporting marks, 1990s+). Gravity or gravity-pneumatic outlets, see-through metal running board, and McHenry scale couplers. $54.99 (add $5 to Primed for Grime models). Genesis series. Athearn Trains, 800-338-4639, athearn.com

- **North American Car Corp. 1963-design 20,500-gallon non-insulated tank car.** North American Car Corp. (1966 black lease delivery [Hercules Powder Co. Lessee], 1973+ Anderson Clayton Foods, and 1990+ black lease repaint [Agrico Chemicals Lessee]) and A.E. Staley Manufacturing Co. (1963 delivery). Four road numbers per

scheme; also available painted (black and white) but unlettered. See-through rooftop walkways and end platforms, 100-ton Barber S-2 roller-bearing trucks with rotating bearing caps and separate brake beam, and Kadee scale couplers. $69.95. Tangent Scale Models, 828-412-3886, tangentscalemodels.com

- **Thrall 56-foot All-Door boxcar.** Armstrong; Ashley, Drew & Northern; B.C. Hydro Ry.; Canfor; Cooperstown & Charlotte Valley Ry.; Green Bay & Western; Illinois Terminal; and Sacramento Valley. Two road numbers per paint scheme. Separate, factory-applied ladders, latch bars, door handles, and brake wheel; etched end platforms with crossover grab iron; and Proto-Max metal couplers. $74.98. WalthersProto. Wm. K. Walthers Inc., 414-527-0770, walthers.com

HO scale sets

- **Bombardier LRC box set.** VIA Rail (Locomotive, two coaches, and one VIA 1 car — 1981+) and Amtrak (locomotive and three coaches, 1980+). Includes 48-page, full-color book on this history of the LRC by Kevin J. Holland; two commemorative LRC glasses; and LRC tie clip and cuff links set. Without sound, 659.95; with ESU LokSound sound decoder, $769.95. Rapido Trains Inc., 905-474-3314, rapidotrains.com

N scale locomotives

- **General Electric ES44AC diesel locomotive.** New paint scheme — Ferromex. New road numbers — Canadian National, Canadian Pacific, and CPKC. One to two numbers per scheme. Prototype-specific body styles, illuminated ditch lights and number boxes, and Kato magnetic knuckle couplers. Direct-current model, $125; with DCC motor-only decoder, $225; with sound decoder, $325. Kato USA Inc., 847-781-9500, katousa.com

- **Bombardier LRC diesel locomotive.** VIA Rail (gray, blue, and yellow [1981+] in three road numbers) and Amtrak (phase 3 [1980+] in one number). Working headlights and ditch lights. Sounds recorded from VIA Rail 6921. Suggested minimum radius, 11". Without sound, $169.95; with ESU LokSound sound decoder, $279.95. Rapido Trains Inc., 905-474-3314, rapidotrains.com

N scale freight cars

- **FMC 5347 boxcar.** Primed for Grime — Albany & Eastern RR, Chicago & North Western (Rock Island patchout), Corinth & Counce, and Union Pacific (Corinth & Counce patchout with BKTY reporting marks). Standard schemes — Arkansas-Oklahoma RR, Chattahoochee Industrial RR, Rock Island, and Texas South-Eastern. Two road numbers per paint scheme. Screw-mounted, roller-bearing trucks; separate, factory-applied brake wheel; and McHenry couplers. $34.99 (add $5 to Primed for Grime models). Athearn Trains, 800-338-4639, athearn.com

N scale passenger cars

- **Bombardier LRC passenger equipment.** VIA Rail (Coach: 1981+ delivery, 1998+ Canada [standard and faded], 2013+ Renaissance, and 2018+ green, gray, and yellow schemes. Business class: 2013+ Renaissance and 2018+ "The Future is Onboard" schemes. Business class/VIA 1: 1998+ Canada scheme. Club car: 1981+ delivery scheme) and Amtrak (coach, 1980+ phase 3 scheme). Etched-metal stirrup steps, full interior detail, track-powered interior lighting compatible with DC and DCC, redesigned trucks, and working marker lights. Suggested minimum radius, 14". $79.95 each. Rapido Trains Inc., 905-474-3314, rapidotrains.com

O scale

Electrical substation. This ready-to-use lineside detail is now available from Midwest home improvement chain Menards. Electrical substation No. 12 includes transformers and support structure with bushings, cables, cooling fins, insulators, and more. The O scale substation, priced at $24.99, is framed by a chain link fence with assorted signs attached. The model, which does not feature lighting, is mounted on a scenicked plastic base. The substation measures 5¾" x 4⅝" x 5¼". Menards, menards.com/trains

Rapido Trains N scale GMDD F40PH-2D

A General Motors Diesel Division F40PH-2D is once again being offered in N scale by Rapido Trains. The model, which we last reviewed in the December 2022 issue, is available with rebuilt and as-built carbodies in multiple VIA Rail Canada paint schemes. Features on the four-axle passenger unit include illuminated headlights, ditch lights, and number boxes; prototype-specific details; and body-mounted couplers.

General Motors Diesel Division, Electro-Motive Division's Canadian subsidiary, built 59 cowl-bodied F40PH-2D locomotives (the D indicating a desktop control stand) for VIA Rail between November 1986 and July 1989. The F40PH-2D quickly became the workhorse of VIA's fleet.

The diesels were rebuilt at CAD Railway Services in Montreal between 2009 and 2012. The most obvious change was the extension at the rear of the carbody to accommodate the separate head-end power (HEP) generator. Other modifications included the removal of the class lights and the addition of a third headlight to the nose. In addition, the locomotives were repainted into VIA Rail's Renaissance scheme and were assigned to the GPA-30H class.

The sample we received is decorated as VIA Rail 6409, part of the passenger carrier's 6400 through 6458 series. The model depicts a rebuilt unit.

An exploded-view diagram shows how Rapido's F40PH-2D is assembled. The model has a one-piece plastic shell with many separate, factory-applied details, including formed wire grab irons and handrails; a plastic air conditioner and rooftop antennas; and a see-through, etched-metal grill on the dynamic brake fan. The winterization hatch is plastic with a molded screen.

The truck frames are plastic moldings with slots on the ends that fit over tabs on the gear case. Each truck has free-standing swing hangers; the remaining details are molded.

To separate the shell from the chassis, I first released the vertical grab irons from the steps that lead to the doors for the HEP section of the carbody. Then I gently spread the shell and lifted it off. A few toothpicks proved helpful here. You don't need to remove the couplers.

The motor and flywheels are centered in the chassis. On top of that is the motherboard, secured with screws. The ESU decoder is attached to the motherboard; the speaker is located above the rear truck.

Rapido's N scale version of the 6409 is neatly painted in VIA Rail's green, gray, and yellow Renaissance scheme. Graphic placement matches the many prototype images online. The road number and locomotive class are a bit closer to the color separation line than on the prototype, but hardly a deal breaker.

I did two rounds of product testing on our review sample, which has an ESU LokSound V5 sound decoder and MoPower capacitor. For the workbench speed tests I used an NCE Power Cab. At step 1 the locomotive moved at just under 2 scale mph. The passenger diesel achieved a top speed of 89 smph at step 28. The prototype units have a top speed between 90 and 95 mph.

For real-world testing, I took the F40PH-2D over to our Milwaukee, Racine & Troy State Line Route layout. I used the four-axle unit to power our version of VIA Rail Nos. 5 and 6, a three-car train between Prince Rupert, British Columbia, and Jasper, Alberta. The train looked great on the model railroad, and the locomotive had no issues navigating the layout's 18" minimum radius curves and No. 6 minimum turnouts.

If you model VIA Rail in N scale, you'll want to check out the F40PH-2D from Rapido Trains. With two body variations and multiple paint schemes, you can easily re-create Canadian passenger operations from the late 1980s to today. — *Cody Grivno, senior editor*

Facts & features

Price: Direct-current model, $159.95; with ESU LokSound V5 sound decoder, $269.95
Manufacturer
Rapido Trains
382 High St.
Buffalo, NY 14204
rapidotrains.com
Era: 2009 to present (as decorated)
Road names: VIA Rail Canada (Rebuilt — Renaissance scheme, Love the Way wrap, and $10 bill scheme. As-delivered — original, Canada, Operation Lifesaver, Telus, Kool-Aid, and Home Hardware schemes). One to three road numbers per scheme.
Features:
- Body-mounted couplers, at correct height
- Metal wheel stubs on plastic drive axle gears, correctly gauged
- Suggested minimum radius, 11"
- Weight: 3 ounces

Walthers HO scale EMD SW1 switcher

A new run of HO scale Electro-Motive Division SW1 end-cab switchers is now available from Wm. K. Walthers Inc. The Mainline-series model has received several upgrades since I last reviewed it in the April 2014 issue. The switcher is now offered with a dual-mode ESU Sound & DCC decoder, and direct-current models include a speaker and 21-pin DCC connector. Both versions have factory-installed and painted wire grab irons.

Trains.com members can see the Walthers SW1 in action with this QR code.

Electro-Motive Division produced the SW1 from January 1939 until November 1953. Manufacturing was paused by order of the War Production Board between 1942 and 1945. However, some units were finished in 1942 and 1943. At the end of the production run, 661 units were built.

The sample we received is decorated as Milwaukee Road No. 975, part of the railroad's 950 through 977 series. The unit was built in November 1940 under build number 01184 as Milwaukee Road 1631. It was painted in the scheme depicted on the model and renumbered 975 in August 1959. The SW1 was renumbered twice in 1972: 947 in March and 879 in December. The end-cab unit was retired in May 1980.

The SW1 features a two-piece plastic shell consisting of the cab and hood and a die-cast metal chassis. Freestanding plastic details include the side and end handrails and stanchions, air tanks, and air horn. In addition to the grab irons, the long hood handrails and uncoupling levers are formed wire. The cab interior has a control stand, hand brake control box, and brake wheel.

The cab is attached to the chassis and shell with three tabs (one below the back cab step, the other two in the lower front sides of the cab). A tab below the sandbox secures the hood to the chassis. Wires for the front headlight are tethered to the motherboard, so lift the hood off slowly.

The motor and flywheels are centered in the die-cast metal chassis. A pair of screws holds the motherboard to the chassis. The 21-pin ESU Sound & DCC decoder is located on top of that. The speaker is above the front truck.

Our review sample is neatly painted in Milwaukee Road's orange-and-black paint scheme. The separation line between colors is crisp, and the white road numbers are opaque.

Prototype drawings of the EMD SW1 were printed in the 1947 edition of Simmons-Boardman's *Locomotive Cyclopedia of American Practice*. The model closely follows published data for length, width, and height.

I did initial product testing at the workbench using an NCE Power Cab. At step 1 the SW1 moved at 1 scale mph. The end-cab switcher achieved a top speed of 44 smph. Full-size switchers built before January 1945 had a maximum permissible speed of 45 mph. That was increased to 50 mph on units built after January 1945.

Then I used the sound-equipped model to switch cars on our Winston-Salem Southbound Tar Branch layout. The model railroad has a mix of commercial and handlaid track and turnouts and a 30-degree crossing. The SW1 ran flawlessly and navigated the crossing and a No. 4 turnout without incident.

I've long counted the EMD SW1 among my favorite diesel locomotives. A tip of the hat to Walthers for upgrading its HO scale Mainline-series model with new features that appeal to customers with DC and DCC layouts. — *Cody Grivno, senior editor*

Facts & features

Price: Direct-current model with a 21-pin DCC connector and factory-installed sugar-cube-type speaker, $199.98; with ESU Sound & DCC, $254.98.

Manufacturer
Wm. K. Walthers Inc.
5601 W. Florist Ave.
Milwaukee, WI 53218
walthers.com

Era: January 1939 to present (varies based on paint scheme)

Road names: Milwaukee Road; Amtrak; Boston & Maine; Chicago, Burlington & Quincy; Chicago & North Western; New York Central; and Southern Ry. Three to four road numbers per paint scheme. Also available painted Industrial Yellow but unlettered and undecorated.

Features
- Body-mounted Proto-Max metal couplers, at correct height
- Metal wheel stubs mounted on plastic drive axle gears, properly gauged
- Minimum radius, 18"
- Weight: 9.5 ounces

Athearn N scale ACF Center Flow

An American Car & Foundry

4,600-cubic-foot capacity three-bay Center Flow covered hopper is the latest addition to the Athearn Genesis series. The N scale freight car features an assortment of etched metal, formed wire, and injection-molded plastic detail parts.

American Car & Foundry (ACF) produced the 4600 three-bay Center Flow from January 1965 until October 1981. More than 15,000 cars were built during that time. Covered hoppers produced through August 1971 had a single horizontal stiffener on both car sides. Cars constructed after that had a pair of horizontal stiffeners near the top of the sides. Athearn offers models of both versions of the covered hopper.

Our review sample is decorated as Western Pacific (WP) 11999, part of the railroad's 11966 through 12000 series built by ACF in March 1975. The covered hoppers changed ownership in 1982 when WP was acquired by Union Pacific. Some of the cars from this series were repainted, while others kept their as-delivered paint well into the 2010s.

Examples of ACF 4600 Center Flow can still be found in service today. One of the WP cars, No. 11974, was purchased by members of the Western Pacific Yahoo Group in 2002 and donated to the Western Pacific Railroad Museum in Portola, Calif.

The Athearn model has a plastic body with a separate, factory-applied roof. There were a few small gaps at the joint between the roof and carbody on both sides of the car.

The Genesis-series model has a see-through, etched-metal running board with formed-wire corner grab irons. The WP car has six round hatch covers on the roof; other road names have trough-style hatch covers.

The end cages are plastic parts with molded grab irons and crossover handrails. The cage for the B end has a molded brakewheel housing, back plate, and brake chain; the brake wheel is a separate part. A see-through metal crossover platform is attached to the bottom of the cage on both ends of the car.

The B end of the covered hopper has a factory-applied air reservoir, brake cylinder, and control valve. Wire auxiliary and emergency reservoir pipes run from the air reservoir to the control valve.

Underneath, the car has molded and factory-applied details. Molded details include the screw bosses for the trucks, the draft-gear boxes, and the shaker brackets on the hopper bays. The sill stubs and body bolsters are molded as a single unit that fits around the bosses.

The sample we received has a smooth, even coat of gray paint. Graphic placement matches a prototype image of another car from the class in *Western Pacific Color Guide to Freight and Passenger Equipment* by Jim Eager (Morning Sun Books Inc., 2001)

Prototype drawings for the covered hopper were published in *ACF Center Flow CF 4600* by Eric A. Neubauer (Society of Freight Car Historians, 1994). The Athearn model matches or is within scale inches of published dimensions.

There were a few detail discrepancies. The side ladder stiles are attached to the exterior of the side sheet, but should be tucked behind it. The roping tabs should be inboard of the body bolsters.

To see how the Genesis-series car performed in an operating layout environment, I took the covered hopper over to our Milwaukee, Racine & Troy State Line Route layout. I pushed and pulled the car in a mainline freight; ran it through the crossover at Williams Bay, Wis.; and had it in a cut of cars while switching the yard at Rockford, Ill. The covered hopper ran without issue in all three scenarios.

The paint schemes in this run of Athearn ACF 4600 Center Flows represent cars in service from the mid-1970s to the present day. If you'd rather paint your own cars, Athearn offers undecorated models with pre- and post-1971 details. The Genesis-series model is sure to be a standout in your rolling stock fleet. — *Cody Grivno, senior editor*

Facts & features

Price: Single car, $39.99 (Primed for Grime, $44.95); three-pack, $104.99

Manufacturer
Athearn Trains
2904 Research Rd.
Champaign, IL 61822
athearn.com

Era: 1975+ to present (varies based on paint scheme)

Road names: Single cars — Western Pacific, Burlington Northern, First Union Rail (Primed for Grime), St. Marys Railway West (Primed for Grime), and undecorated (pre- and post-1971 body styles). Single cars and three-pack — Rock Island.

Features

- 36" metal wheelsets, in gauge
- Body-mounted McHenry scale couplers,
- Minimum radius, 9¾"
- Weight, 1.1 ounces (correct per National Model Railroad Association Recommended Practice 20.1).

Tangent HO Erie RR ICC bay-window caboose

An Erie RR International Car Co. (ICC) bay-window caboose is now available from Tangent Scale Models. The HO scale model, the ninth caboose offered by the manufacturer, is available in paint schemes depicting the car from its delivery in the early 1950s to an example that's still in service today.

Erie RR ordered 50 bay-window cabooses from ICC in Kenton, Ohio, in 1953. The cabooses were numbered C301 through C350.

Our review sample is decorated as Erie RR C311, based on the full-size caboose built in June 1953. Following the 1960 merger between Erie and Delaware, Lackawanna & Western, the bay-window caboose became part of the newly created Erie Lackawanna fleet, retaining its original number. It was painted in the Spartan Red and gray, maroon, and yellow schemes during its time on the EL.

After the creation of Conrail in April 1976, the bay-window caboose became part of the new railroad's N7D class and was renumbered 21127. The caboose was involved in a wreck and scrapped in February 1983.

The plastic caboose is complemented with see-through metal end platforms, etched-metal treadplate steps, and formed wire parts.

Erie C311 has an overhanging Stanray diagonal-panel roof detailed with a wagon wheel antenna and ground plane, a smokejack, and vent pipes. A variety of freestanding parts are found on the sides and ends, including metal curved side and vertical end grab irons and metal windshield wipers on the bay window.

Die-cast metal was used for the underframe. The center sill assembly (sills, cross members, body bolsters, and draft-gear boxes) is a single plastic molding. The brake system consists of plastic and formed wire parts.

Inside, the caboose has a detailed interior illuminated with golden light-emitting-diodes, simulating the incandescent bulbs used on the full-size caboose. The lights, along with the corner lanterns, can be turned on and off with the supplied magnetic wand.

The Erie caboose is equipped with newly-tooled General Steel Casting Corp. "express" trucks with separate brake beam detail.

The sample we received is neatly painted in Erie's as-delivered paint scheme. The color separation lines are crisp, and the white printing is opaque.

Prototype drawings of the C301 through C350 series of cabooses appeared in the *Erie Lackawanna Freight Equipment Diagram Book* published by Erie Model Works. The Tangent caboose matches published dimensions.

Two wheelsets were slightly out of gauge. Since the model uses metal wheel stubs mounted on plastic axles, the minor issue was easy to correct. I simply held the axle and gently twisted the wheels to bring them into gauge.

Then I took the model over to our Milwaukee, Racine & Troy East Troy Industrial Park layout to see how it performed on an operating layout. I ran the caboose on the main, through a curved turnout, over a 30-degree crossing, and on industrial tracks. The caboose had no issues navigating our project layout.

Tangent Scale Models has raised the bar for HO scale plastic caboose models. Fans of the Erie RR and its successors will want to check out this model. — *Cody Grivno, senior editor*

Thanks to Paul Tupaczewski, Erie Lackawanna RR Historical Society modeling advisor, for the prototype history info.

Facts & features

Price: $149.95 (undecorated kit, $99.95)
Manufacturer
Tangent Scale Models
P.O. Box 6514
Asheville, NC 28816
tangentscalemodels.com
Era: 1953 to present (varies based on paint scheme)
Road names: Erie RR (1953 delivery red), Conrail (June 1976 and 1981+ blue repaints), Delaware & Hudson (1980+ simple repaint and 1981+ Bridge Line repaint), Erie Lackawanna (1966 simplified repaint and 1973 gray-and-maroon scheme), and Reading & Northern (2014+). One to six road numbers per scheme. Undecorated kits (four body styles) also available.
Features
- 33" metal wheel stubs mounted on plastic axles
- Body-mounted Kadee scale couplers, at correct height
- Minimum radius, 18"
- Weight: 4.3 ounces, .6 ounce too heavy per National Model Railroad Association Recommended Practice 20.1

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By Cody Grivno

Below the road number on VIA Rail F40PH-2D No. 6406 (Rapido Trains), Canadian National GP9 No. 4411 (Athearn), and Canadian Pacific ES44AC No. 8912 (ScaleTrains) is an alpha-numeric code. We help a *Model Railroader* forum user learn how to crack the codes once again. Cody Grivno photo

Canadian diesel locomotive classifications

Q Canadian National and Canadian Pacific locomotive classifications are located under the road number on the cabs of many of their diesels. I used to know how to decode them, but I don't remember anymore. Does anyone mind giving me a refresher on this?

CJL_Railfan, via the MR Forums

A The *Canadian Trackside Guide*, published by the Bytown Railway Society Inc., provides a breakdown of what the alpha-numeric classifications stand for on Canadian National, Canadian Pacific, and VIA Rail Canada diesels. Since there are more classifications than we have time to cover here, I'll use three models as examples: Canadian National GP9 No. 4411 from Athearn, VIA Rail Canada F40PH-2D No. 6406 from Rapido Trains, and Canadian Pacific ES44AC No. 8912 from ScaleTrains.

Canadian National No. 4411 was built by General Motors Diesel Division, the Canadian subsidiary of Electro-Motive Division, as No. 1735 in March 1955. In 1956 it was renumbered 4411.

When you look below the road number on the cab side, you can see the classification GR-17a. That alpha-numeric code indicates the following: G is General Motors Diesel Division; R is road switching; 17 is horsepower rounded to the nearest hundred; and a is the order the unit came from.

Canadian National also uses E and M as builder designations for General Electric and Montreal Locomotive Works (and Bombardier Inc.), respectively. There are six different letters that can come after the lead letter in the classification: F (road freight), H (hump), P (passenger), R (road switching), S (switching), and Y (yard).

Occasionally, a third letter is used in CN diesel classifications before the dash: A (cab unit), B (booster unit), G (road switcher with steam generator), L (lead hump unit), and T (trailing hump unit).

After the dash in CN classifications are two or three numbers. Two digits indicates the horsepower, rounded to the nearest hundred. If there are three digits, the lead number indicates the number of axles on the diesel, followed by the horsepower.

VIA Rail Canada follows CN's locomotive classification practices. Under the road number on VIA Rail Canada F40PH-2D No. 6404 is GPA-30a. In this code, G is General Motors Diesel Division, P is passenger, A is cab unit, 30 is horsepower rounded to the nearest hundred, and a is the order the locomotive is from.

Canadian Pacific's class designations are a bit less involved. Below the road number on CP ES44AC No. 8912 are two designations. One is ES44AC, which is General Electric's model designation. To the left of that is DRF-44, CP's classification. DRF is Diesel Road Freight and 44 is horsepower rounded to the nearest hundred. Two other prefixes used by CP are DRS (Diesel Road Switcher) and DS (Diesel Switcher). Like CN, CP also uses suffixes after the horsepower to identify which order the locomotive is from.

Send questions on model, prototype, and toy trains to AskTrains@Trains.com.

Q Several years ago you did a demonstration on ballasting track for a steam-to-diesel transition era railroad. You lined the edge of the stone ballast with cinders. I understand why because it substituted for some of the stone ballast to help with drainage and control erosion, saved money, and provided a place for the cinder waste the railroad had to get rid of. Did the railroads place only cinders as ballast on certain selected sidings (which ones?) and branch line spurs?

Dr. Tom Hiser

When it came time to ballast the track on his diorama, Paul J. Dolkos used crushed rocks on the main line (right) and cinders on the siding. Also notice that Paul added a few weeds between the ties on the siding. Railroads didn't maintain sidings as rigorously as main lines. Paul J. Dolkos photo

A *Model Railroader* Consulting Editor Tony Koester responded:

Everybody loves free stuff, and the frugal railroads were no exception. In the steam era on railroads that burned coal for fuel, locomotives produced a considerable quantity of cinders. It needed to be disposed of, and it was available at no additional cost. So where a main track was not ballasted with stone, cinders were commonly used. They were also used as a "subroadbed" to build up the roadbed under the deep layer of stone ballast on main tracks. A Nickel Plate Road cross-section drawing shows 6" of cinders and 8" of stone ballast under the ties at the track centerline. It did not specify the depth of cinders in adjacent tracks, but they're generally considerably lower than the main line because of the lack of stone ballast. Track at a mainline turnout, therefore, gradually ramps down to the lower height of a side track.

So it's reasonable to assume that for most Eastern, Southern, and Midwestern railroads, which used coal-burning locomotives, cinders were used for almost everything from sidings and industrial spurs to yards and some branch lines. Many short lines also used cinders for mainline ballast.

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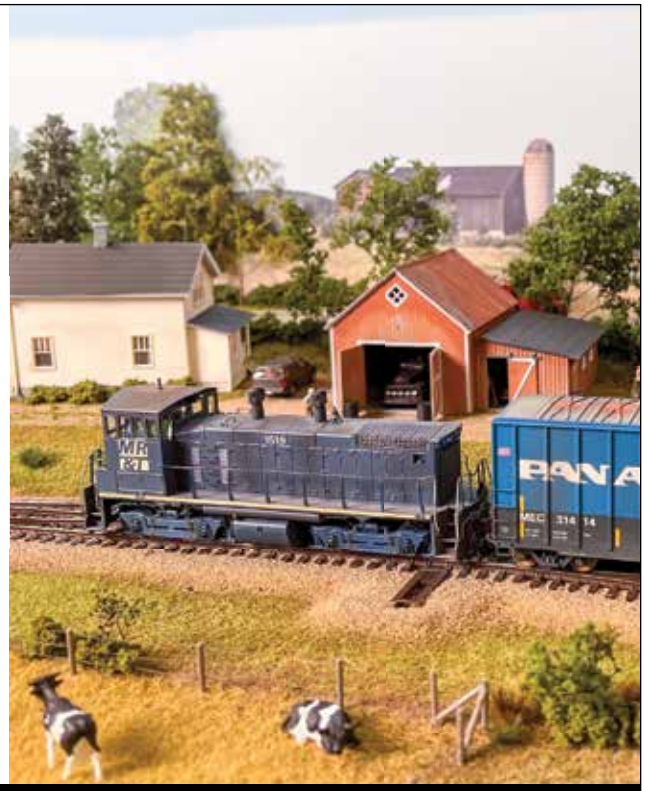

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A 'clean' way to bend hardboard

Tempered hardboard has long been a staple in the hobby. The material is sold in 4 x 8-foot panels (as well as smaller 2 x 4- and 4 x 4-foot handi-panels) in various thicknesses, including 1/8", 3/16", and 1/4". You can find it at home improvement stores. Some common uses for the thinner panels in model railroading include valances, fascias, and backdrops.

Though the pressed wood fiber panels have been used on countless number of layouts over the years, the one drawback is that the material is difficult to bend — or is it? Consulting Editor Tony Koester needed a 12"-radius curve in his 3/16"-thick hardboard backdrop to fit in a corner. While on the Proto-Layouts chat group, several modelers suggested spraying the area that needed to be curved with Windex glass cleaner with Ammonia-D.

"I couldn't find anything but regular Windex, but I did find a spray bottle of ammonia lurking under the kitchen sink," Tony wrote. "I soaked both sides of the hardboard with both liquids, but especially the rough backside, which would be in tension. I then weighted down the long end and clamped the short end to the balusters in my back porch railing.

"It worked!" Tony reported. "This would work equally well for fascias and valances. It might have been easier had I used 1/8"-thick hardboard, but I wanted thicker material to offer less flexing when I glued the photo backdrop to it."

A few days later Tony sent me a follow-up email with another post from the Proto-Layout group. Member Randy Seller wrote, "Get some Formula 409 spray cleaner. Spray the hardboard liberally with that and you will feel it relaxing as you spray. Rub it in and bend the panel to your heart's content. I made some very tight bends in hardboard with this technique."

Whether you choose Windex or Formula 409 to help bend hardboard, use the cleaner in a well-ventilated area and wear chemical-resistant gloves, eye protection, and other personal protective gear recommended on the product packaging and manufacturer websites.

Model Railroader Consulting Editor Tony Koester needed a 12"-radius curve in his tempered hardboard backdrop. After spraying the panel with Windex window cleaner and ammonia, he weighted down the long end and clamped the short end to the balusters on his porch. The finished backdrop is shown above. As you can see, the tempered hardboard holds its shape nicely. Tony Koester photo

Another mortar solution

I read Editor Eric White's "How to color brick structures" article in the August 2026 issue of *Model Railroader* in which he describes using joint compound to simulate mortar on brick models. I was a great believer in joint compound but continually ran into the same problem he did: the compound softens the red paint used on the bricks and turns the mortar pink. At one point I thought I'd discovered the solution by first painting the plastic bricks with solvent-based paint to see if that would alleviate the pink problem. It kind of did ... sort of.

Later I learned about the most undiscovered product in model railroading: Robert's Brick Mortar Formula. I'll never go back to joint compound again. Robert's Brick Mortar Formula is a water-based, non-toxic, water-soluble solution that's safe for plastic, plaster, and epoxy. It contains infinitely fine calcium carbonate powder, which Google tells me is the main component of several types of rocks. Brush it on to your brick structure, let it dry, and then wipe off the film from the faces of the bricks. The remaining calcium carbonate creates perfect white mortar lines [Robert's Brick Mortar is a division of South Side Trains in Milwaukee. You can order it direct at southsidetrains.com. — *Ed.*]

Want to add realistic-looking mortar to your brick buildings? Gerry Leone recommends Robert's Brick Mortar Formula. Gerry Leone photo

The result looks absolutely great. The process is nowhere near as problematic as joint compound, and there's very little "picking compound out of nooks and crannies all over the wall," as Eric described.

You can darken the white mortar by brushing on a thin mixture of India ink and alcohol, as you can see on the left sides of my tests.

Can you tell I'm sold on this stuff? — *Gerry Leone, host, "Spaces to Places" on Trains.com Video*

By Chris Adams

There's always room for staging

While Chris Adams' large east end yard has multiple tracks and plenty of room for engine and rolling stock storage, he determined all prototype mainline operations could be supported by just a four-track staging yard at the west end. A cover protects the staged trains during operating sessions. Chris Adams photos

My hometown of Old Saybrook, Conn., was not only the south end of the branch line I model, but is also the one town I model on the New Haven RR's busy Shore Line route. To support so many mainline trains, my original design included a large staging yard in a separate room at one end of a dogbone main line. The idea had been to have this large yard feed westbound trains directly, but eastbound trains would travel on hidden track behind the Saybrook scene before looping back "on stage" through town.

After construction was well underway, I finally came to my senses (with the help of my friends) and ditched the idea of so much hidden, inaccessible track. But I also wanted to avoid eastbound trains having to first head west through Saybrook. The solution was to add a staging yard at the "west" end of the railroad to feed eastbound trains.

Unfortunately, I had never planned on staging at that end of the railroad, and I didn't think there was any room for it. But in a classic example of form following function, I sacrificed some aisle space and shoehorned a west end staging yard on a shelf cantilevered off the front of the layout.

Among all the skills our wonderful hobby demands, "problem solving" is probably the most common and broadly applied. As you can see from this project, a solution may present itself as long as you're willing to think inside the box.

Chris Adams has been into the hobby since his first copy of Model Railroader *(January 1983). His "Valley Local" layout was featured in* Model Railroad Planning 2026*, and depicts the New York, New Haven & Hartford's Connecticut Valley Line during the late 1940s.*

STEP 1 BUILD THE BENCHWORK

The staging yard is built on an 8"-wide shelf, which was initially 8 feet long (to match the layout section to which it would be attached). I started by adding metal shelf brackets to the legs of the layout. You can find the brackets at big box home improvement centers like The Home Depot, Lowe's, and Menards, and at well-stocked hardware stores.

The metal shelf brackets I purchased had predrilled mounting holes. I attached the brackets to the layout's legs with Phillips head screws.

Then I built an open grid frame of 1 x 3s. The frame is 8½" wide and 8'-0" long.

On top of the open grid frame I added a ½" plywood top as the subroadbed.

I extended the frame 2 feet farther with a drop-down to allow easy access to my electrical panel. Rerailing tracks simplify working with rolling stock.

Once the track was all in place I hid the staging under a cover. I did not make a cover for the 2-foot drop-down staging extension.

STEP 2 BUILD A COVER

The aisle is only about 24" wide here, and I didn't want errant elbows knocking models onto the floor. To prevent that from happening I built a hinged cover fashioned from plywood to protect the trains.

I added a 6" high wall 6'-8½" long to the front of the staging yard benchwork. Then I used a long piano hinge to attach a lid made from ½" plywood cut 8½" wide by 6'-3¾" long that can be opened for easy access.

I added small L-brackets to the layout fascia to support the lid when closed.

Finally, I attached support wires from those brackets on the layout fascia to hooks on the front wall to prevent the cover from pulling away.

When I was done, I had created a staging yard in a box. This not only protected the rolling stock but provided an operator's shelf at the same time.

Materials list

Lumber
Benchwork: 1 x 3 dimensional lumber, with crosspieces on 16" centers
Subroadbed, front wall, and lid: ½" plywood
Front wall: 6" x 6'-8½"
Lid: 8½" x 6'-3¾"

Hardware
9" x 11" shelf brackets (2)
6-foot piano hinge
3" hinges to connect drop-down extension (2)
Small (1") L brackets (4) (mounted on layout as rests for the lid)
Cuphooks (2) (mounted on front wall)
Picture hanger wire (to tie cuphooks to small L brackets to anchor wall/lid)

Upgrade modern commuter diesels

How to use paint, detail parts, weathering, and decals to make Bachmann's HO scale Siemens SC-44 Chargers match their full-size counterparts

By Michael Haworth
Photos by the author

Michael Haworth shares how he used paint, detail parts, and decals to enhance these three Bachmann HO scale Siemens SC-44 Charger diesel locomotives. His easy-to-follow techniques make these factory-fresh models look like they are in the early stages of earning their keep moving commuter trains through the Golden State.

When Bachmann announced its HO scale Siemens SC-44 Charger diesel locomotives decorated in the North County Transit District Coaster and Amtrak Pacific Surfliner paint schemes, I knew I had to get some. The models, which feature a plastic body and die-cast metal chassis, have a mix of molded and factory-applied details, allowing them to withstand normal handling in an operating layout environment. The modern four-axle units also have a factory-installed TCS WOWSound decoder and a full suite of light-emitting-diode lighting effects, which add realism to operating sessions.

Though the Bachmann models are fine straight from the box, some simple upgrades made them look more like the 1:1 diesels found on the West Coast. Instead of sweating every last detail, I focused on those that had the most visual impact. Some of my techniques were universal for all three units, such as tweaking parts on the front and rear pilots, painting and detailing the cab interior, enhancing the molded and freestanding details with paint and weathering, and installing Kadee metal SF shelf couplers.

In other instances, the upgrades were prototype specific. For example, the California DOT units (CDTX 2111 and 2121) decorated in Amtrak's Pacific Surfliner scheme lacked Caltrans lettering at the rear of the carbody sides. Those units, as well as the Coaster engine, also needed the California state flag in the upper rear corner of both sides. I had custom decals produced so I could add those graphics.

The Bachmann HO scale Siemens SC-44 Chargers are based on some of the newest diesel locomotives on the rails today. With a bit of weathering and detail work, I was able to make them look even more like the prototypes they're based on.

Michael Haworth lives in southern California and models in HO and G scales. This is his first byline in Model Railroader *magazine.*

Materials list

Details West
AS-184 Automatic Train Stop (Pacific Surfliner only)
HC-388 HEP cables for Amtrak locomotives

Kadee
118 couplers

Precision Design Co.
Custom decals for Caltrans and California flag details

Tru-Color Paint
TCP-065 Southern Pacific *Lark* Dark Gray

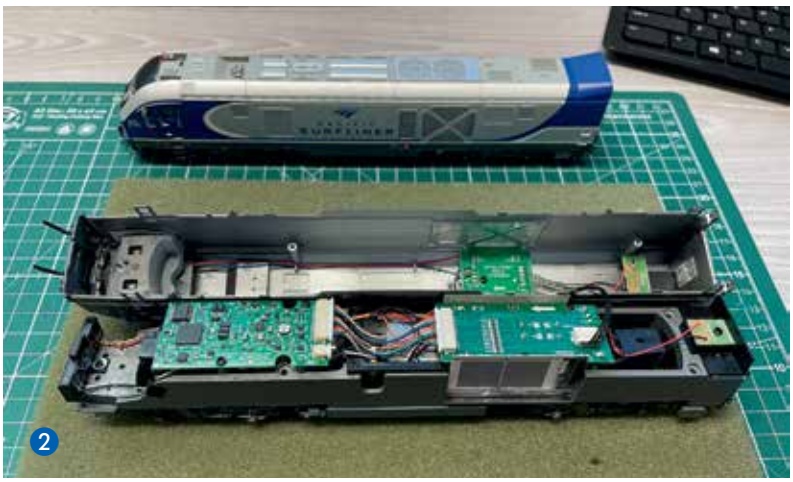
Vallejo Model Air paint
71.032 Golden Brown
71.042 Dark Brown
71.063 Silver
71.133 Dirt

White Rose Hobbies
WRH1000 AEI tags

Miscellaneous
Crew figures
Flat black, blue, and yellow paint

STEP 1 // LOCOMOTIVE DISASSEMBLY

1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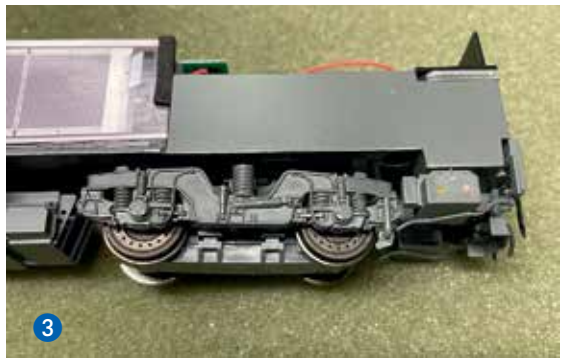
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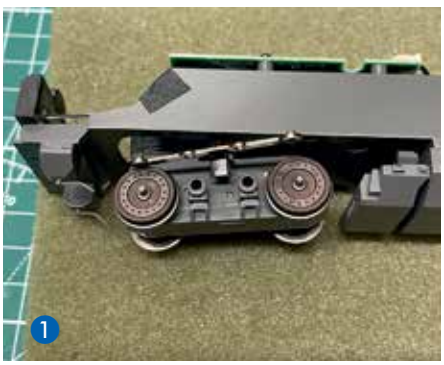
To make the Bachmann HO scale Siemens SC44 Charger easier to work on, I disassembled each model. I started by removing the front pilot and the four screws that hold the shell to the frame 1.

Next, I disconnected the lighting harness that runs from the printed-circuit board above the rear truck to the lights attached to the body shell 2. With the screws removed and the wiring harness detached, the shell easily slid off the frame. I set the injection-molded plastic shell aside for the time being.

I then turned my attention to trucks. First, I removed the axle retainers. To do this, I released the four tabs (two per side, partially hidden behind the wheels) that fit over raised nubs on the gear case. Once detached, the truck sideframes easily released from the holes in the gear case 3.

With the SC44 partially disassembled, it was time to dig into the individual projects.

STEP 2 // WHEELS AND TRUCKS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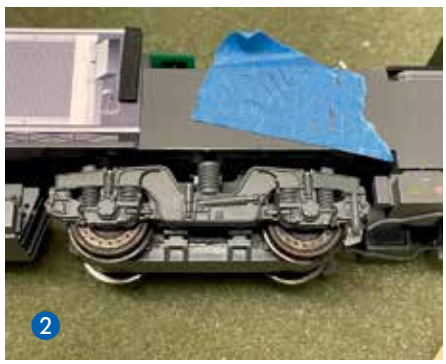
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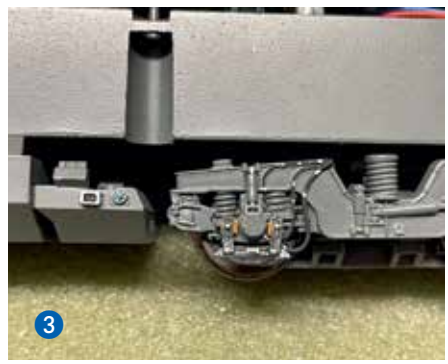

3

I gently moved the metal wheel wipers out of the way. Then I painted the outer edge and center face of each wheel with Vallejo Model Air Dark Brown (71.042). I was careful to keep paint off the brake discs, wheel treads, and axle tips 1. [To remove residue from the manufacturing process and any excess lubrication, wipe the wheel faces with a cotton swab dipped in 70% isopropyl alcohol prior to applying the paint. — *Ed.*]

After the paint dried on the wheel faces, I reinstalled the truck sideframes and axle retainers. To break up the uniform gray of the sideframes, I used a toothpick to paint the molded cables flat black. I applied silver paint in a few spots to simulate the connections and clips where the cables are attached to the sideframes. I also put silver on the top of each shock absorber 2.

On the Amtrak Pacific Surfliner units I added an Automatic Train Stop shoe to the second axle on the engineer's side. I modified the Details West white-metal casting (AS-184) by cutting out the center portion so it would fit around the axle cover.

I painted the metal casting Tru-Color Paint SP *Lark* Dark Gray (TCP-065). After the paint had dried, I applied Vallejo Model Air Golden Brown (71.032) to match prototype photos 3. I painted the digital fuel gauge black with silver trim, also visible in 3.

STEP 3 // FRONT AND REAR PILOTS

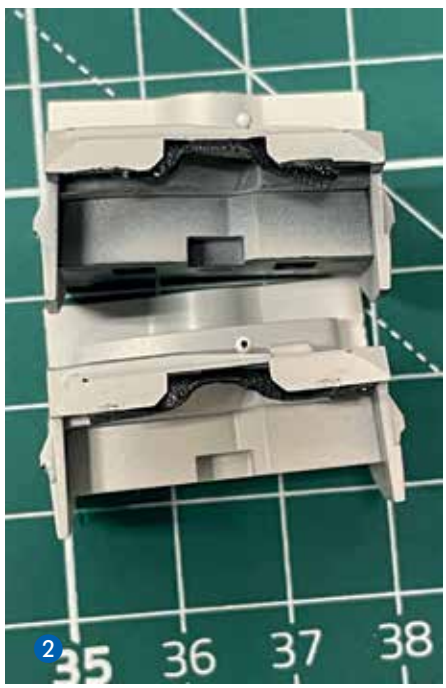
On the front pilot, I tucked the m.u. hose clusters behind the plow. I painted the glad hands on the m.u. and train line hoses silver. Then I painted the top of the coupler pockets with Tru-Color Paint SP *Lark* Dark Gray 1.

The rear of the SC44 Charger has a molded plastic train line hose, m.u. hose clusters on the rear pilot, and a closed HEP cable receptacle. As before, I painted the glad hands silver on the m.u. and train line hoses 2.

I carefully shaved off the red receptacle covers and saved them. I then used No. 65 bit in a pin vise to drill holes for the Details West HEP cables (HC-388). I painted the HEP connection to the pilot silver and the exposed plastic on the receptacle Tru-Color SP *Lark* Dark Gray to match the pilot.

Next, I bent the HEP cables to shape and painted the connection to the pilot silver, the male end of the cable yellow, and the cables black. After the paint had dried, I added yellow and blue bands to match the full-size cables. I used glue to re-attach the receptacle covers and touched up the red paint 3. I also installed a Kadee No. 118 coupler during reassembly.

STEP 4 // CAB INTERIOR



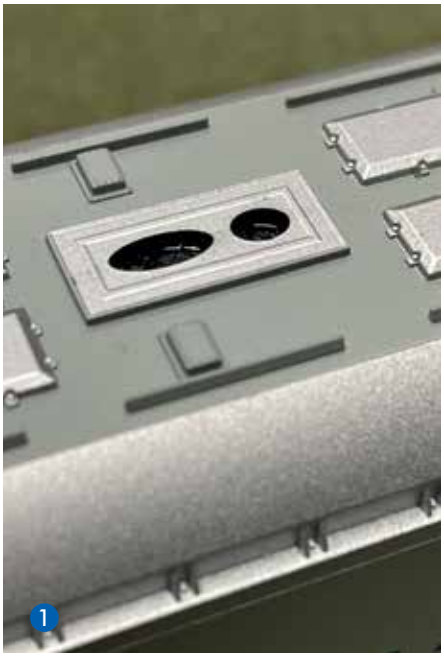
I gently spread the shell to release the cab interior, which is one piece gray molding 1. Since the interior is visible through the two large cab windows, I decided to dress it up a bit. First, using a sharpened toothpick, I applied a dot of black paint to the forward-facing camera to represent the lens 2.

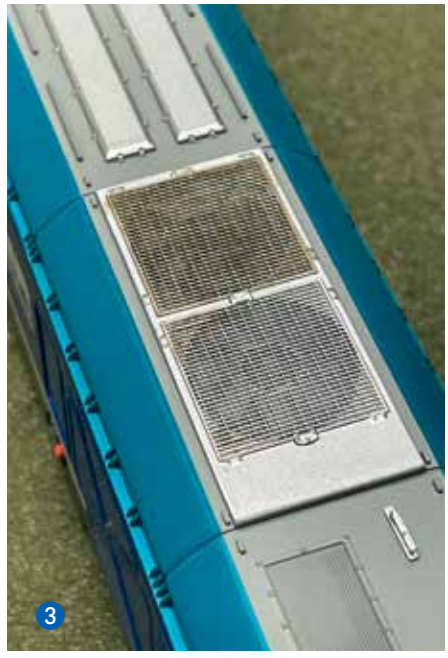
Then I used black, red, and silver to paint the screens, seats, and various raised details on the desktop control console 3. To give the cabs a lived-in look, I added crew figures to the seats and scaled down timetables and paperwork to the dashboards. I even put a

blue tissue box in one cab interior 4. If I had it to do over again, I would have placed more of the paperwork away from the corners of the dashboard as they're mostly covered by the locomotive shell.

Finally, I added window shades using a fabric pattern printed on computer paper. Each window shade is at a different position to provide visual interest 5. An example of a completed and reassembled cab is shown in 6.

STEP 5 // ROOF WORK





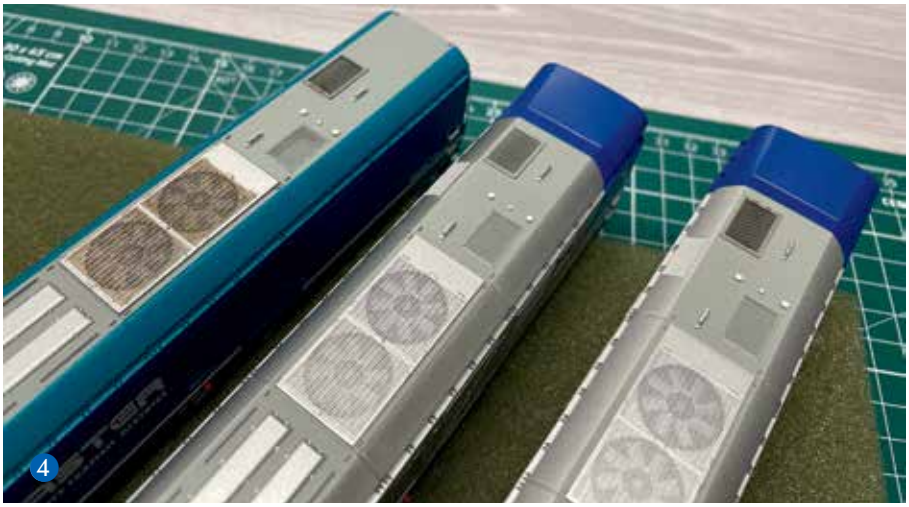
The roof on the Bachmann SC-44 Charger is the part of the model most operators and visitors will see, so I spent quite a bit of time on it. First, I painted the inside of the exhaust stack on each model flat black 1. This can be done with a fine paint brush or superfine Microbrush.

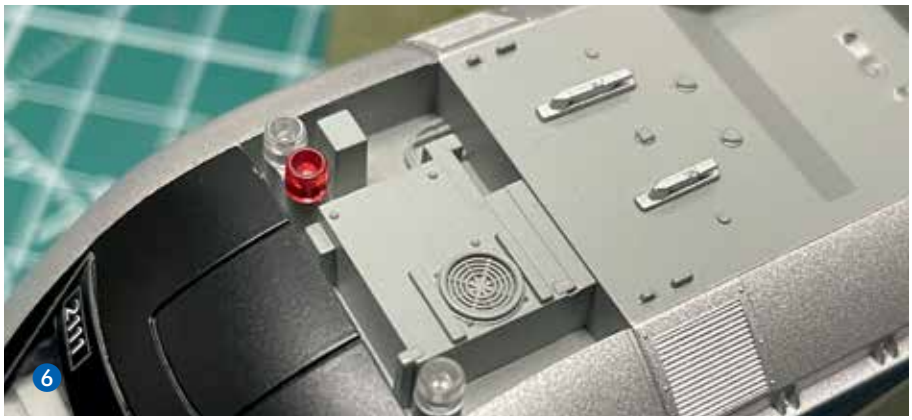
Next, I used blue painter's tape to mask the exhaust stack on top of the diesel engine room and the vent on top of the second electrical equipment compartment. I used an airbrush to spray these areas with a light coat of flat black paint 2.

On the North County Transit District Coaster unit, I drybrushed the grills over the engine cooling compartment fans a dirty silver color that I made by mixing equal parts Vallejo Model Air Dirt (71.133) and Silver (71.063). You can see the difference between the weathered and unweathered grills on the Bachmann model in 3.

All of the units have three round antennas on top of the second electrical equipment compartment. I brush-painted the raised details white to match the prototype commuter locomotives 4, next page.

Then I shifted my attention to some of the smaller details near the front of the locomotive. I used a fine paintbrush to apply a wash of thinned black paint to bring out the grill detail on the air conditioner 5.





On unit No. 2111, the two antennas on top of the first electrical equipment compartment were installed backwards at the factory. Instead of facing forward, as shown in 6, the antennas should be facing the rear of the locomotive. Fortunately, this was an easy fix. I used a flat-blade screwdriver to remove the plastic detail parts. Then I re-installed the antennas facing the proper direction.

The air horns, located on top of the first electrical equipment compartment, are painted gray on the North County Transit District Coaster and Amtrak Pacific Surfliner engines. However, the front of each chime has a conical shape representing stainless steel debris covers found on the prototype locomotives. To make the covers stand out from the factory-painted chimes, I painted them with the same 1:1 mix of Vallejo Model Air Dirt and Silver that I used earlier 7.

STEP 6 // DECALS, AEI TAGS, AND MORE

The Bachmann models decorated in the Amtrak Pacific Surfliner scheme lack the Caltrans lettering and California state flag found on the rear of the carbody sides on the full-size locomotives. The North County Transit District Coaster diesel is also missing the state flags in the same locations.

To remedy this, I had Precision Design Co. produce waterslide decals for the SC-44 diesels. The Caltrans decals were printed on clear decal film. The California state flags were scaled and reproduced on white decal film 1.

I trimmed the four Caltrans decals as close to the graphics as possible to eliminate excess decal film. I cut the six state flags to a rectangle shape 2.

3

4

5

6

After soaking the decals in distilled water, which is free of minerals that may dry as white spots on the models, I placed them on the locomotives and blotted off the excess water. Even though the decals were put on smooth surfaces, I still applied decal setting solution to give them a painted-on appearance. The decaled engines are shown in 3.

I then added Automatic Equipment Identification (AEI) tags from White Rose Hobbies to the tabs that hang below the sills by the rear axle on the front truck 4. I attached the injection-molded polystyrene details with a dab of Testor's Clear Parts Cement.

To wrap up the project I made laminated double-sided cards for each locomotive. The front of each card has a color picture of the locomotive, the railroad name, model designation, and road number.

The back of each card has the road name, locomotive type, and Digital Command Control decoder address. I also included handling instructions so operators don't damage the details and weathering. The remainder of the reverse of each card lists the different decoder functions 5.

In addition, I modified the front of the cards to make new labels for the boxes. This makes it easy to spot the models when they're in storage 6.

With that, my Bachmann HO scale Siemens SC-44 Chargers decorated in California commuter paint schemes were ready to earn their keep hauling passengers through the Golden State, as shown in the photo below. Hopefully you can put some or all of these easy-to-follow techniques to use in your next locomotive modeling project. MR

Clinchfield's Carolina Division

Books and magazine articles pointed the way to a great model railroad

By Brent Johnson • Photos by Dan Munson except as noted

Some of my earliest memories of railroading are of Conrail and Chessie System around where I grew up in Dayton, Ohio. However, it was frequent trips to visit family in Harlan, Ky., that exposed me to the grit and grime of Appalachian railroading on the Louisville & Nashville's (later CSX) Cumberland Valley Subdivision. Perhaps it was a cab ride in an L&N GP38-2 that cemented my love for railroading in that region.

Years later, after stumbling across old copies of the November and December 1976 *Railroad Model Craftsman*, I also learned about the Clinchfield RR. In those issues, a two-part article by Jim Boyd and Tony Koester exposed me to this captivating 277-mile-long Class I railroad that ran from Elkhorn City, Ky., south to Spartanburg, S.C. The full-color book *Clinchfield Country* by Steve King further cemented my interest in this railroad. Unfortunately, by this time, the Clinchfield was gone, absorbed with the other members of The Family Lines System into Seaboard System in 1983, and later into CSX.

From prototype to model

In 2012, my wife and I purchased our current home. Included with the home was an unfinished 35 x 51-foot basement with an additional 14 x 14-foot area under the sunroom. Now I could finally begin designing and planning by dream layout. Prior to the purchase of our new home, I had already begun researching potential areas to model. For certain, I would model the 1970s, as it is my favorite era of American railroading. Between the mix of first- and second-generation diesels, mergers and the variety that goes along with them, and the colorful mix of rolling stock, the 1970s was an interesting time.

Although I considered modeling a portion of the L&N's Eastern Kentucky lines because of my childhood experiences, my planning sessions kept bringing me back to the Clinchfield. The prototype I wanted to model had to have a variety of traffic: long coal drags with helpers, hotshot manifest freights, and plenty of local freights to keep crew members busy. I also wanted enough negative space between towns so road

1 Clinchfield RR Electro-Motive Division SD45 3625 leads train No. 97, the *Florida Perishable*, through Chesnee, S.C., on Brent Johnson's HO scale layout. The multideck walk-in Clinchfield Carolina Division is set in western North and South Carolina between 1979 and 1981.

crews would get the feeling of going somewhere. Well-known modeler Gerry Leone refers to these areas as the spaces between places.

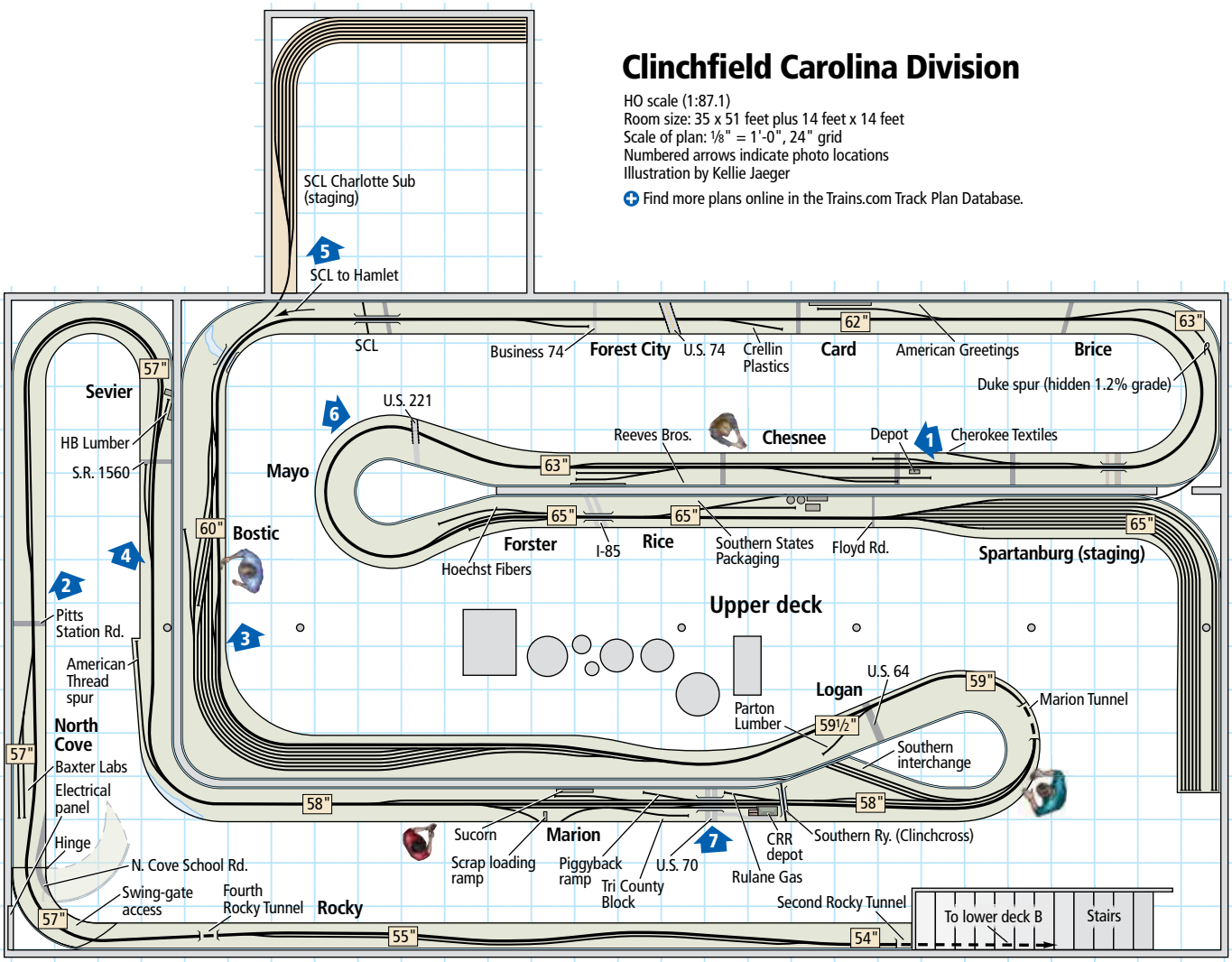
Now that I settled on the Clinchfield as a prototype, I had to decide what portion of the Clinchfield I would focus on. The far north end from Elkhorn City, Ky., to Dante, Va., was dominated by coal. While I love Appalachian coal hauling, I wanted the opportunity to model a variety of industries. I then turned my sights toward the industrial areas of Kingsport and Johnson City, Tenn.

My first step was to make a 365-mile field trip from my home in Troy, Ohio, to those areas, accompanied by Clinchfield expert and Kingsport native C.K. Marsh. When I got home, I purchased 3rd PlanIt track-planning software and came up with several designs that fit my footprint. To effectively model this region of the railroad, however, I needed to allocate quite a bit of real estate to yards and industrial complexes. While this would add a lot of operational switching challenges, my desire for additional negative space far outweighed the need for complex switching.

Armed with a copy of C.K.'s book, *Clinchfield in Color Vol. 1*, I began looking at a region of the Clinchfield that I hadn't really considered in the past: the south end of the railroad. Whereas the prototype Clinchfield didn't divide itself into divisions or subdivisions per se, the railroad was effectively divided into two parts at Erwin, Tenn., the railroad's main shops and headquarters. The south end of the railroad left Erwin, then went up, over, and through the Blue Ridge Mountains. After reaching the summit at Altapass, N.C., the Clinchfield descended the Blue Ridge via the well-known Loops.

The landscape gradually became flatter as the railroad entered the piedmont region of North and South Carolina, finally ending in Spartanburg, S.C., and an important connection with the Southern Ry. (today's Norfolk Southern). The south end was rich in minerals such as feldspar, mica, and olivine, making the Clinchfield an important link to ship these minerals to market. The south end was also a pipeline to ship the coal that originated on the north end to hungry power plants throughout the southeast. Through books and online research, I observed vignettes of locations like Kona, Spruce Pine, and Marion, N.C., places that begged to be re-created on a model railroad.

The abundant coal trains required helpers from Erwin to Altapass, while trains like No. 97, the *Florida Perishable*,



brought fresh produce and priority freight from Florida to northern markets. Several shifters (locals) were stationed throughout the region to serve a wide range of local customers. After careful consideration, I decided the south end of the Clinchfield fit well with what I desired in a model railroad. I affectionately named my future railroad The Carolina Division.

By this time in my life, I had a family and other responsibilities, so I knew that it would be unlikely that I would be able to take a field trip to this region anytime soon. I would have to do my research with a keyboard and a mouse. We live in a remarkable time where a lot of information is available at our fingertips. Google Earth is an amazing tool for researching a railroad's right-of-way and track arrangements, but it is only as good as the year the satellite photo was taken. Much has changed since the late 1970s, so I had to rely on books, old photos, and talking to veteran railroaders to get the information I needed.

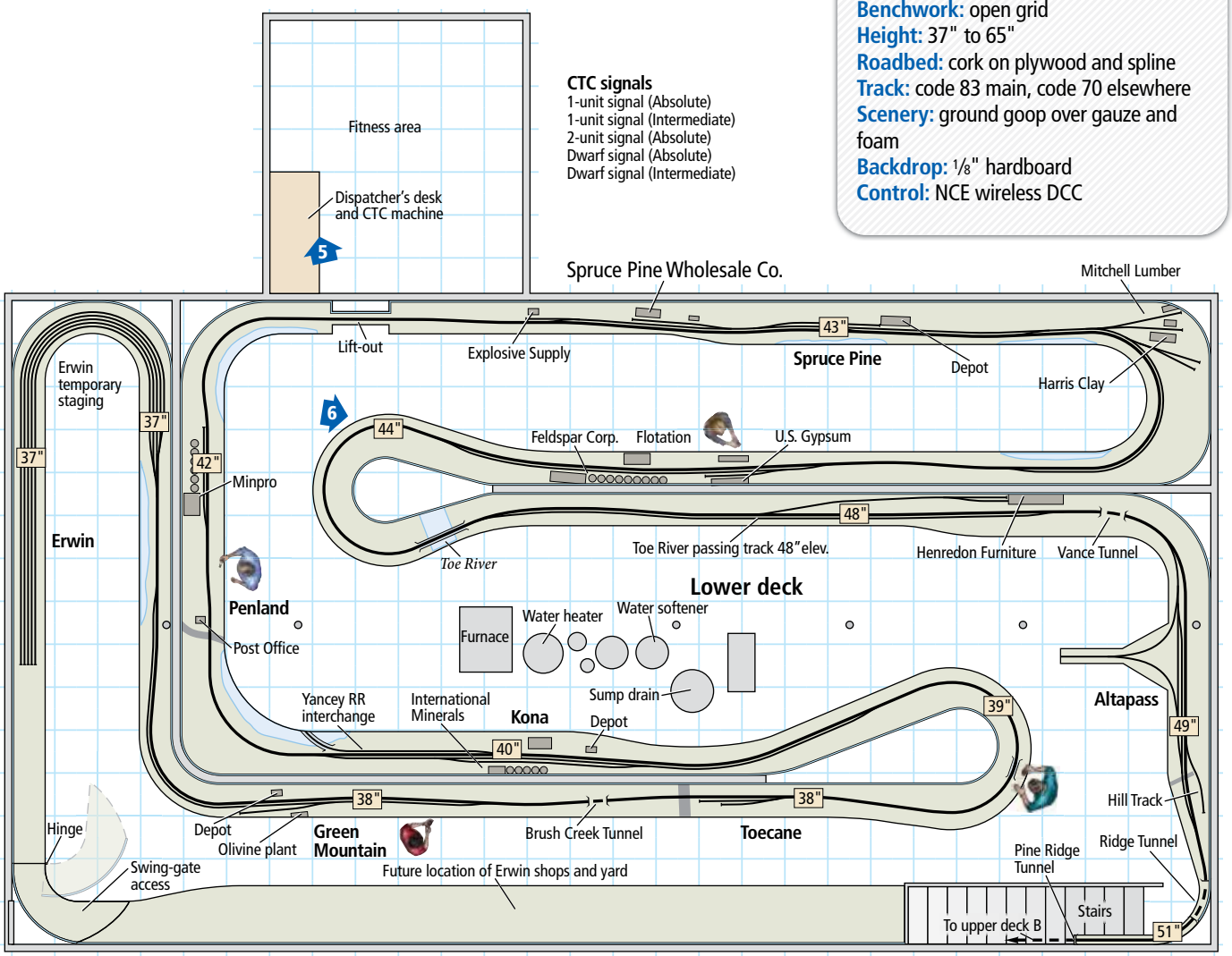
Givens and druthers

After studying Tony Koester's books, *Planning Your Model Railroad* (Kalmbach Publishing Co., 2015) and *Multideck Design for Model Railroads* (Kalmbach Media, 2021), I compiled a list of my givens and druthers — things I had to have, and things I would like to have but could live without. One given was that the layout would be a multideck "no-lix" design — that is, a continuous climb with no space-eating helix between levels. Some rough calculations showed me that I could easily maintain a continuous grade of 1 to 1.5% while keeping switching locations level, an important consideration to keep cars from unintentionally moving from their spotted locations.

The layout would be built with prototypical operations as the primary goal. With that in mind, I would have to leave

The layout at a glance

Name: Clinchfield Carolina Division
Scale: HO (1:87.1)
Size: 35 x 51 feet plus 14 x 14 feet
Prototype: Clinchfield RR
Locale: western North and South Carolina
Era: 1979 to 1981
Style: multideck walk-in
Mainline run: 575 feet
Minimum radius: 36"
Minimum turnout: No. 6
Maximum grade: 2%
Train length: 22 feet
Benchwork: open grid
Height: 37" to 65"
Roadbed: cork on plywood and spline
Track: code 83 main, code 70 elsewhere
Scenery: ground goop over gauze and foam
Backdrop: ⅛" hardboard
Control: NCE wireless DCC



❷ Three Electro-Motive Division SD40s, all Kato models, lead northbound train No. 95 through the north-end control point at Sevier, N.C. A southbound coal train waits in the passing siding.

out some of the scenic gems that the Clinchfield was known for in exchange for modeling locations that play a bigger role in the operations of the railroad. For instance, the Loops are a well-known engineering marvel that began the railroad's descent of the Blue Ridge Mountains at Altapass, N.C. While this could have been a scenic cornerstone of my layout with all of the tunnels and turnback curves, it would have taken a significant amount of real estate to model effectively. On a layout designed for operations, this real estate would be better served with the addition of another passing siding or modeled industry.

Several additional givens included 36"-minimum mainline radius with superelevated curves, No. 6 minimum turnouts, and 36"-minimum aisle width. With those givens and my list of other givens and druthers in hand, I turned to my track planning software. I began locating the staging yards, classification yards, and Layout Design Elements (LDEs: visibly and operationally recognizable models of actual places), which included all of the must-have locations I wanted to model.

The LDEs were then connected with a single-track main line, which gave me the negative space I desired. After spending significant time in the research-and-planning phase, I came up with a track plan I was happy with. But there was one problem: Up to this point in my modeling career, my previous layout building attempts were borderline disastrous.

Learning from an MR project

I've been a model railroader for as long as I can remember. Like many modelers, I built several layouts over the years that did not get much farther than plywood and a few patches of ground foam. My previous attempts at layout construction would be best described as kindling for a bonfire.

I realized that if I were going to take on such a massive undertaking as building the Carolina Division, I needed to prove to myself that I could build a layout from start to finish. The model railroad would need to operate well and look just as good. I didn't want to waste time and money building a large railroad, only for it to end up in a Dumpster.

I've always been a fan of *Model Railroader*'s project layouts. One I was particularly fond of was the Virginian Ry. that ran in 2012. Additionally, there were step-by-step videos of the layout's construction on the Trains.com website. I decided to build the Virginian Ry. project layout as a way to refine my modeling skills and give myself the confidence to take on a larger project. After several months, I built a virtual clone of the project railroad, which operated nearly flawlessly. This reassured me that I could take on more.

Ready for prime time

As I prepared to move on from the 4 x 8 Virginian layout to the much larger Carolina Division, I first built a scale model of the planned layout using foam core. The model of the model gave me a three-dimensional view of how the Carolina Division would fit in the allotted space. Included in the model were scale representations of the furnace, water heater, support posts, and other objects that I would need to contend with.

I designed the benchwork for the Carolina Division as if it were a large shelf layout. The benchwork is supported by stud walls that are attached to the floor and the rafters. I installed a drop ceiling and lighting after the stud walls were in place. The upper deck is lighted with 5000K can lights. I also installed 2 x 4-foot light-emitting diode (LED) tube lighting fixtures above the aisles, which are useful for extra lighting while working on the layout. The lower deck is illuminated with high-output LED strip lights. I'm happy with the bright and even lighting produced by the LED strips and prefer it to the upper deck's can lights.

One piece at a time

I was well aware of the possibility that I could suffer burnout from biting off

Layout access options

When designing the Carolina Division, I had to figure out how to thread the main line around the stairs leading into the basement. There was a fitness room, which also contains a staging yard, that I needed access to as well as the home's electrical panel that would be blocked by the layout.

The stairs leading into the basement are located in a corner, which get in the way when a layout is built around the perimeter. I could have built a swing gate or a liftout in this location, but I wanted to avoid this if at all possible. I therefore cut a narrow hole through the stairs to allow the main line to pass through unimpeded. This has worked out well during operating sessions as crew members can easily come and go without interrupting operations on the model railroad.

To provide access to the fitness room, Seaboard Coast Line staging yard, and dispatcher's desk, I built a liftout that spans the doorway. The liftout remains in place during operating sessions but can be easily removed if needed. The upper deck is permanent at this location and does require a person to duck slightly in order to pass through when the liftout is removed.

Finally, access to the home's electrical panel was achieved by building a swing gate. I referred back to Tony Koester's article in the April 2007 MR describing how he built a two-deck access gate to service his water softener and replace the water heater when necessary. The swing gate turned out to be a perfect solution. — *Brent Johnson*

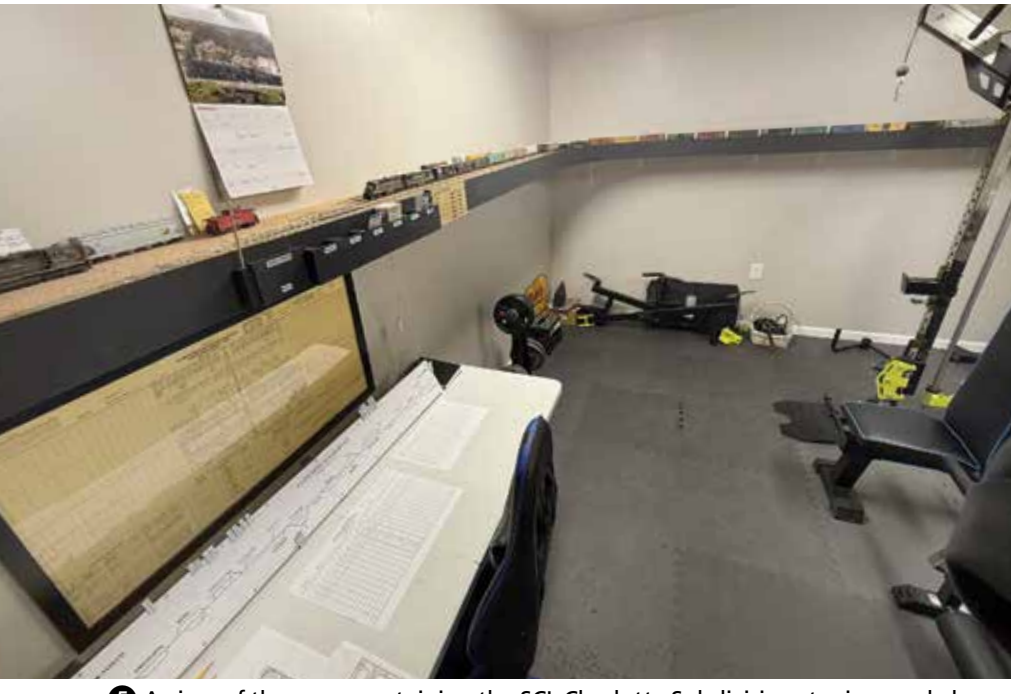
The main line navigates the stairs via a tunnel that was cut through the staircase. This allows unencumbered entry into the layout room.

A liftout is located at the entrance to the room that houses the SCL Charlotte Subdivision staging, the dispatcher's desk, and a fitness area.

A swing gate, based on a similar design Tony Koester built for his NKP layout, provides easy access to the home's electrical panels.

❸ The yard in Bostic, N.C., is a busy place on this warm summer day in 1979. The caboose of a southbound Clinchfield freight has passed the yard office on the main line, while a Seaboard Coast Line manifest is entering the yard from the SCL's Charlotte Subdivision. Additional power, including an older GP7 assigned to the Bostic Shifter, is tied down.

❹ Two trains meet at Sevier, N.C. The train with the Santa Fe-style caboose is northbound on the main; a southbound waits clear of the grade crossing on the passing siding. H&B Lumber is to the right. Although this passing siding was arrow straight at this location on the prototype, compromises had to be made due to space limitations.



❺ A view of the room containing the SCL Charlotte Subdivision staging yard also shows the dispatcher's desk and a fitness area.

Learning Points

- If at first you don't succeed, figure out why.
- Building a test layout based on a *Model Railroader* project railroad proved to be well worth the time and expense.
- Listen to your inner muse; it may point you in the right direction when seeking a prototype to model or to use as a base for proto-freelancing.
- Field trips are great, but online and print resources are so good today that you can do this virtually.
- Be careful of modeling majestic scenes; they often consume valuable space that can be put to better use.

more than I could chew by taking on such a large project. When I laid my first piece of track in 2019, my goal was to build a spur to a single industry so I could have an area to operate should the mood strike. I wanted this area to be complete with scenery to give myself a sense of accomplishment.

After the stud supporting walls were built, layout construction began with the Baxter Labs manufacturing facility located in North Cove, N.C. This facility was a big customer for the railroad that shipped IV solution in insulated Fruit Growers Express boxcars. I designed the plant with the spur located on the opposite side of the main line from where it is located on the prototype. I didn't want the spur for a major industry located on the aisle side of the main line as it would be difficult to spot and uncouple cars with a building in the way. This is an example of when operational considerations outweighed prototype fidelity.

Motivated by a completed and working scene based on my prototype, I moved railroad south to the next town of Sevier, N.C. For the remainder of the upper-deck construction, I continued the method of building one area at a time to completion before moving on to the next. I credit this process with keeping all of my skills sharp, while reducing the boredom often brought on by having to repeat one specific task over and over. Rather than being overwhelmed by looking at how much work I had to do to

build the entire layout, I set smaller goals that were reasonable.

Most of the Carolina Division is built on 18"-wide shelves. The widest area on the upper deck is Bostic Yard, which was extended to 24". I like the narrow depth of the 18" shelves, as it allows for roomier aisles and it requires less scenery and fewer structures to fill a scene. The use of photo backdrops helps to give scenes more depth.

Most of my backdrops are from commercial sources, but I have made some myself using photo-editing software. I have been able to maintain aisle widths that are 4 feet or greater in many locations, which is very comfortable for operators.

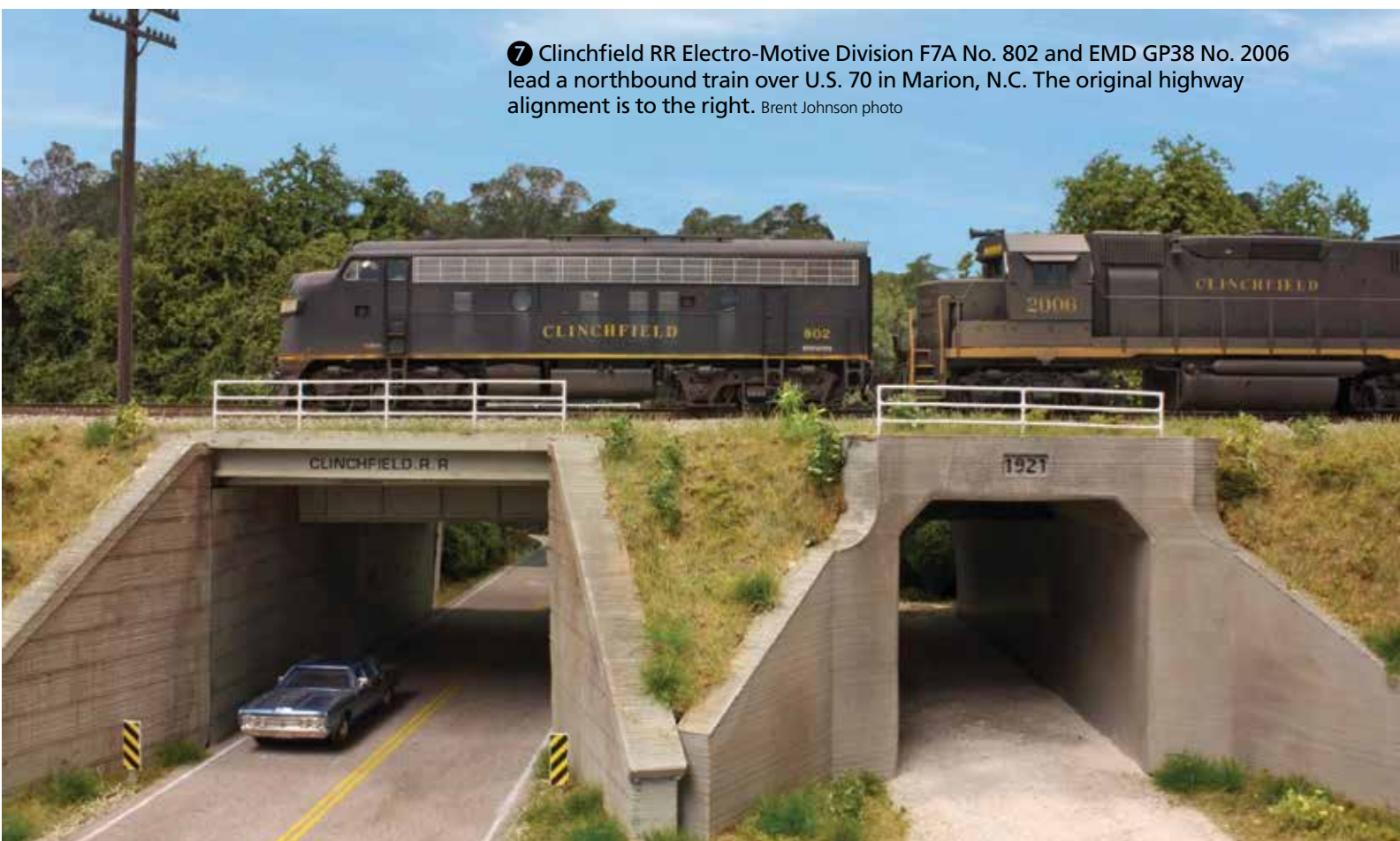
In 2025, I changed the era of the Carolina Division from the mid-1970s to the 1979-1981 time period. This slight change in era was done for two reasons. First, I added the Toe River passing track near Altapass, which wasn't built until 1979. Second, I finally admitted that I am a sucker for locomotives painted in The Family Lines System paint scheme. While the creation of The Family Lines System foretold of pending doom for the Clinchfield RR as a separate entity, I fondly remember seeing many locomotives wearing this scheme well into 1990s, albeit with CSXT reporting marks.

6 The lift-out to the fitness area (see sidebar) is at the lower left. Chesnee, S.C., is on the upper deck at left. Spruce Pine, N.C., occupies most of the unfinished lower deck at this location.

I'm more than happy with what I have accomplished so far in a relatively short period of time. Building and maintaining a large layout has pros and cons, and it's not for everyone. The connections with fellow modelers that has been gained as result of building the Carolina Division is one of the most enjoyable aspects of the hobby. MR

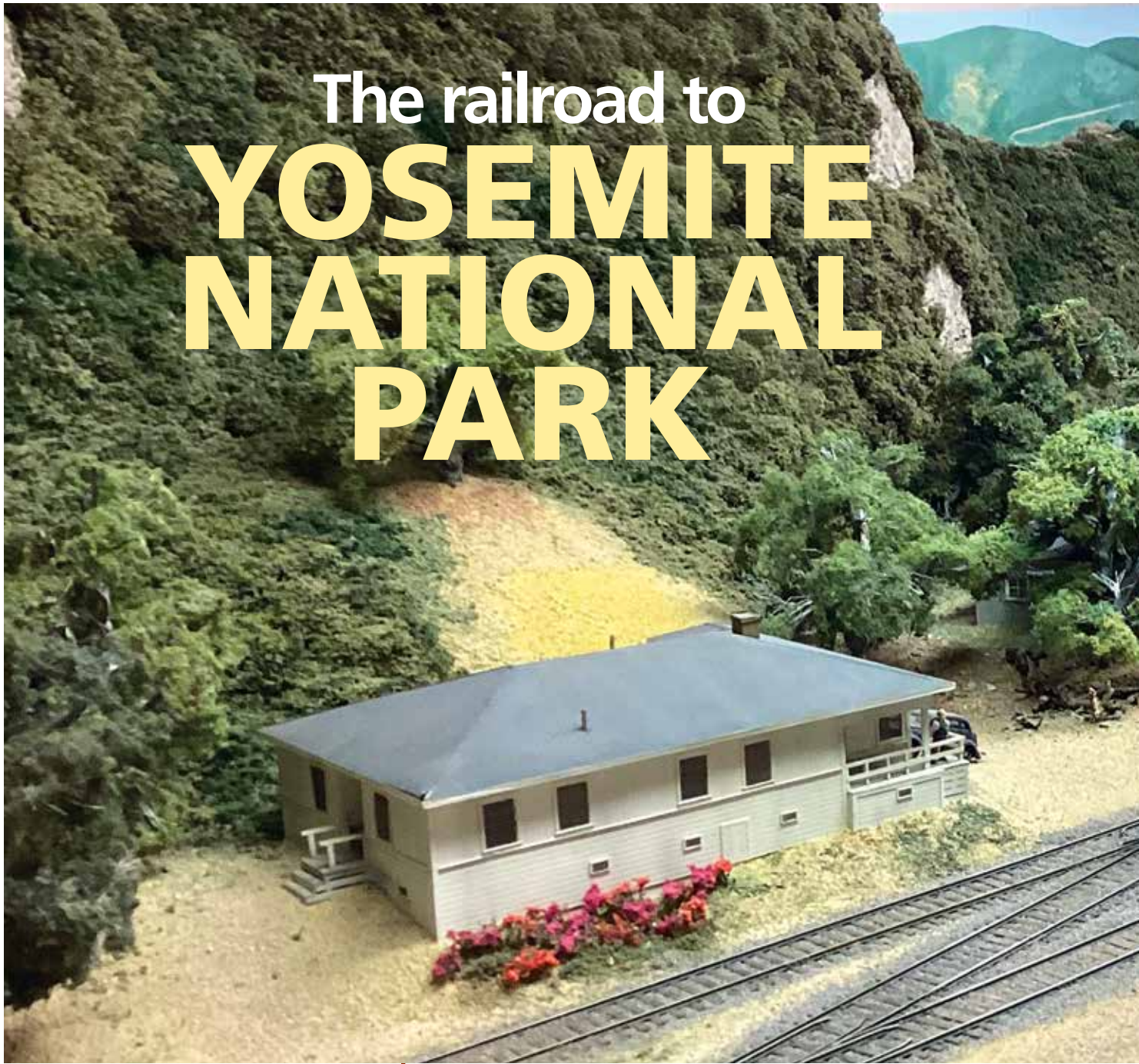
Meet Brent Johnson

Brent lives in west-central Ohio with his wife, Brandy, two children, and two dogs. He enjoys spending time with his family, weightlifting, and following Cincinnati sports teams. He has worked in public safety for the past 27 years.



7 Clinchfield RR Electro-Motive Division F7A No. 802 and EMD GP38 No. 2006 lead a northbound train over U.S. 70 in Marion, N.C. The original highway alignment is to the right. Brent Johnson photo

The railroad to YOSEMITE NATIONAL PARK

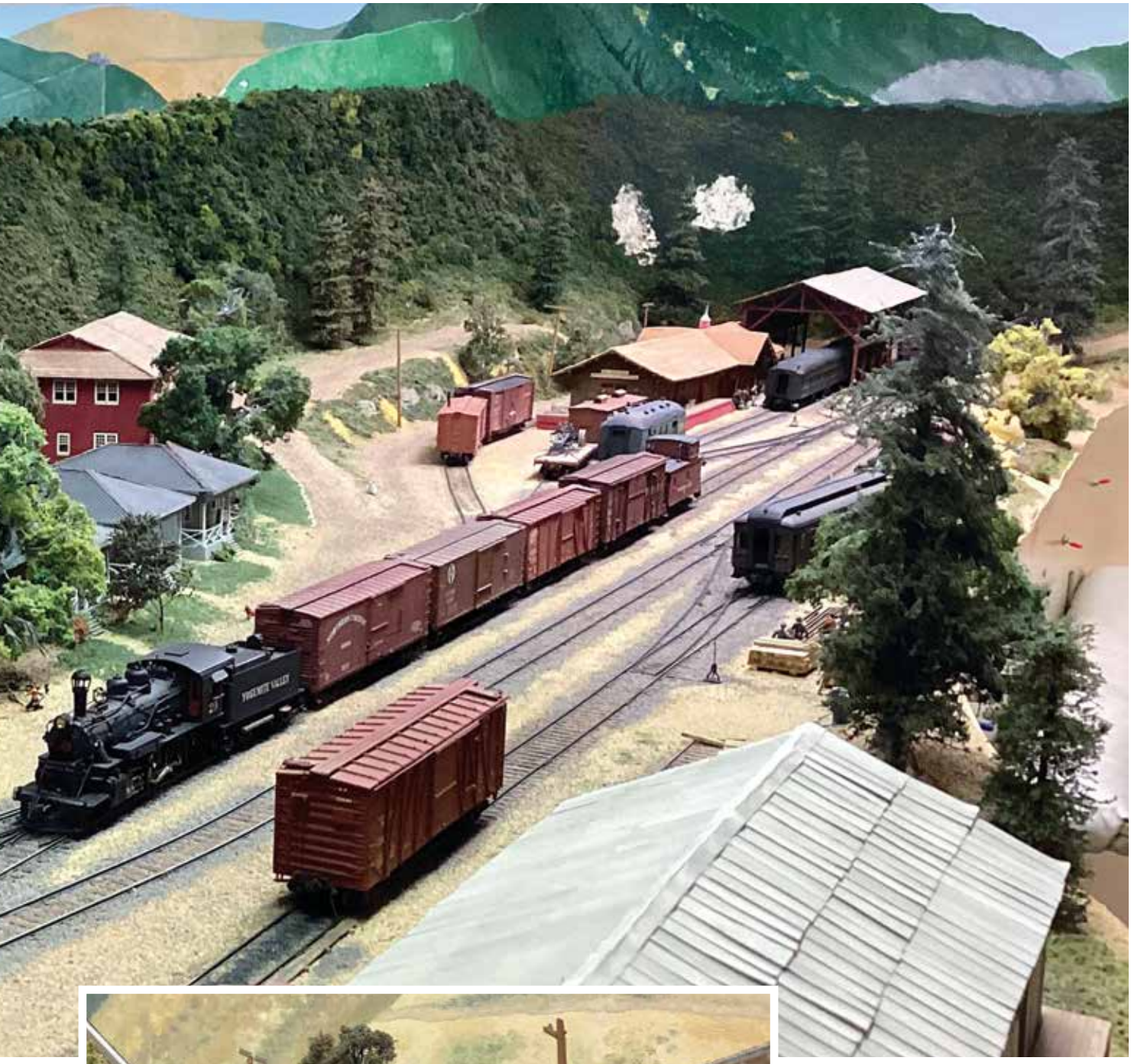


Celebrating more than four decades of Jack Burgess' multi-deck HO scale Yosemite Valley RR

By Jack Burgess
Photos by the author

When I first got into model railroading in the early 1960s, I built a very simple 2 x 6-foot freelanced layout. The only thing prototype on that model railroad was the track gauge. I soon decided to make the switch from freelancing to prototype-based modeling.

I had several preferences related to that decision. One was that the time period had to be when steam locomotives were still the standard motive power. Also, the railroad had to be in California, where I lived, as I didn't have a clue about modeling the trees and scenery in other states.

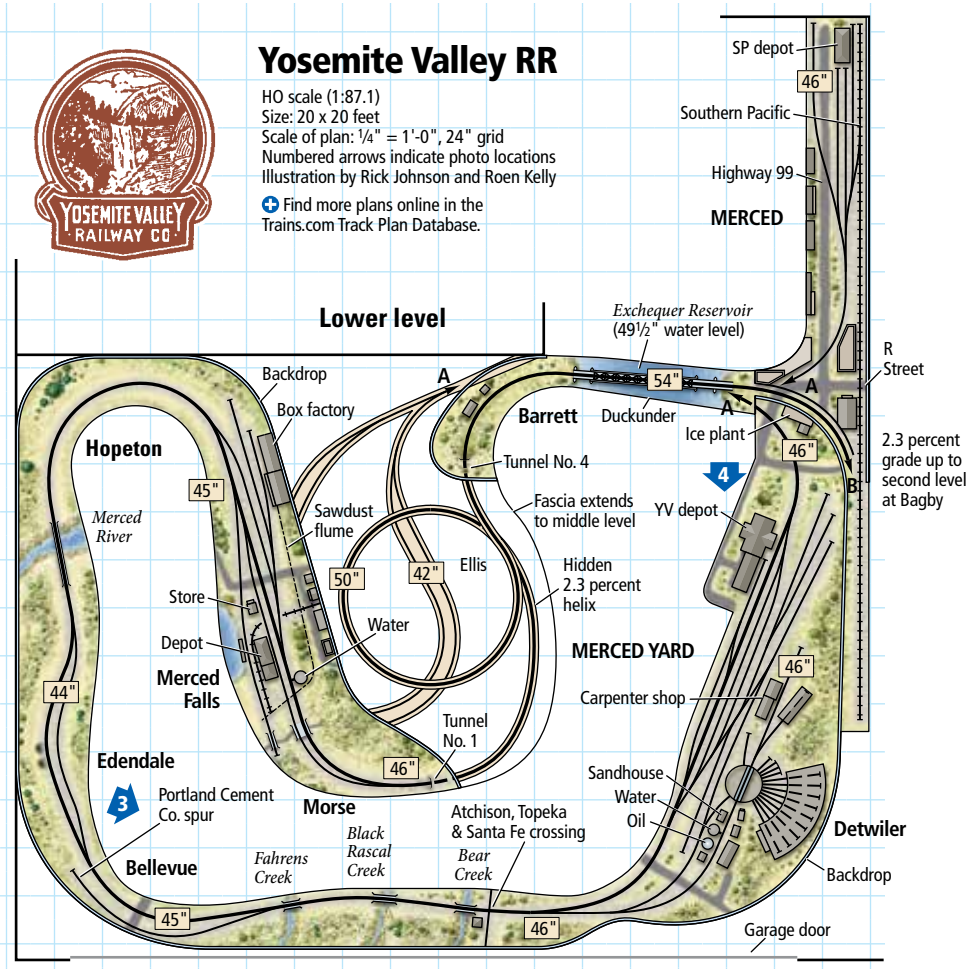


1 For more than 45 years Jack Burgess has been modeling the Yosemite Valley RR circa August 1939 in HO scale. The multi-deck model railroad features many prototype-based scenes, including the El Portal Yard.

2 Mogul No. 28 rolls across Highway 49 in the small town of Bagby, Calif. Jack modeled this scene based on a prototype image that he has in his extensive Yosemite Valley RR photo archive.

The layout at a glance

Name: Yosemite Valley RR
Scale: HO (1:87.1)
Size: 20 x 20 feet
Prototype: shortline railroad to Yosemite National Park
Locale: San Joaquin Valley and Merced River Canyon in California
Era: August 1939
Style: multi-deck walk-in
Mainline run: 112 feet
Minimum radius: 22" with spiral easements
Minimum turnout: No. 5
Maximum grade: 2.3%
Benchwork: open grid
Height: 44" to 82"
Roadbed: ½" Homasote on ½" plywood
Track: handlaid codes 55, 70, and 83
Scenery: plaster-soaked paper towels over screen wire
Backdrop: ⅛" tempered hardboard
Control: NCE Corp. Digital Command Control



In addition, the railroad I selected had to be the subject of a book as I would need a lot of prototype photos to scratchbuild all of the necessary structures and equipment. Fortunately, the library in our small town had a book on the Yosemite Valley RR with more than 300 photos. I couldn't afford to buy a personal copy at the time, but my parents gave me the book for my 23rd birthday. That started me on a journey modeling the Yosemite Valley RR (YVRR).

The 78-mile-long prototype ran from Merced, in California's Central Valley, to El Portal, the gateway to Yosemite National Park. The railroad began operations on May 15, 1907, carrying passengers and freight to El Portal and the stations along the way.

From concept to layout

I began modeling the YVRR in 1967. By 1980, I'd built a test layout and felt I had developed the skills and had the prototype information necessary to begin work on a "final" model railroad. I constructed the layout in what most homeowners call a garage, although we call it a layout room.

My YVRR is an early example of a multi-deck model railroad. Though plans were being published for these layouts in the hobby press at the time, no articles had been written about how to build one, so I was on my own when it was time to build benchwork.

Before I started drafting a track plan, I obtained copies of the original scale drawings of the entire YVRR route from the State of California. Those drawings included the layout of all of the yards along the line. Rather than designing the yards on the model railroad from scratch, I copied the arrangement of the prototype, albeit much more compressed. Since the full-size railroad did the hard part, I've never needed to change the track arrangement in a yard.

The multi-deck layout design has worked out well. The major yards at each end of the railroad are single-deck with nothing above or below them. This was important to me since during operations all four trains start at one end of the layout or the other, and the engineers for two of those trains need to build their trains before departing. Those engineers can thus easily see their entire yard while building their train.

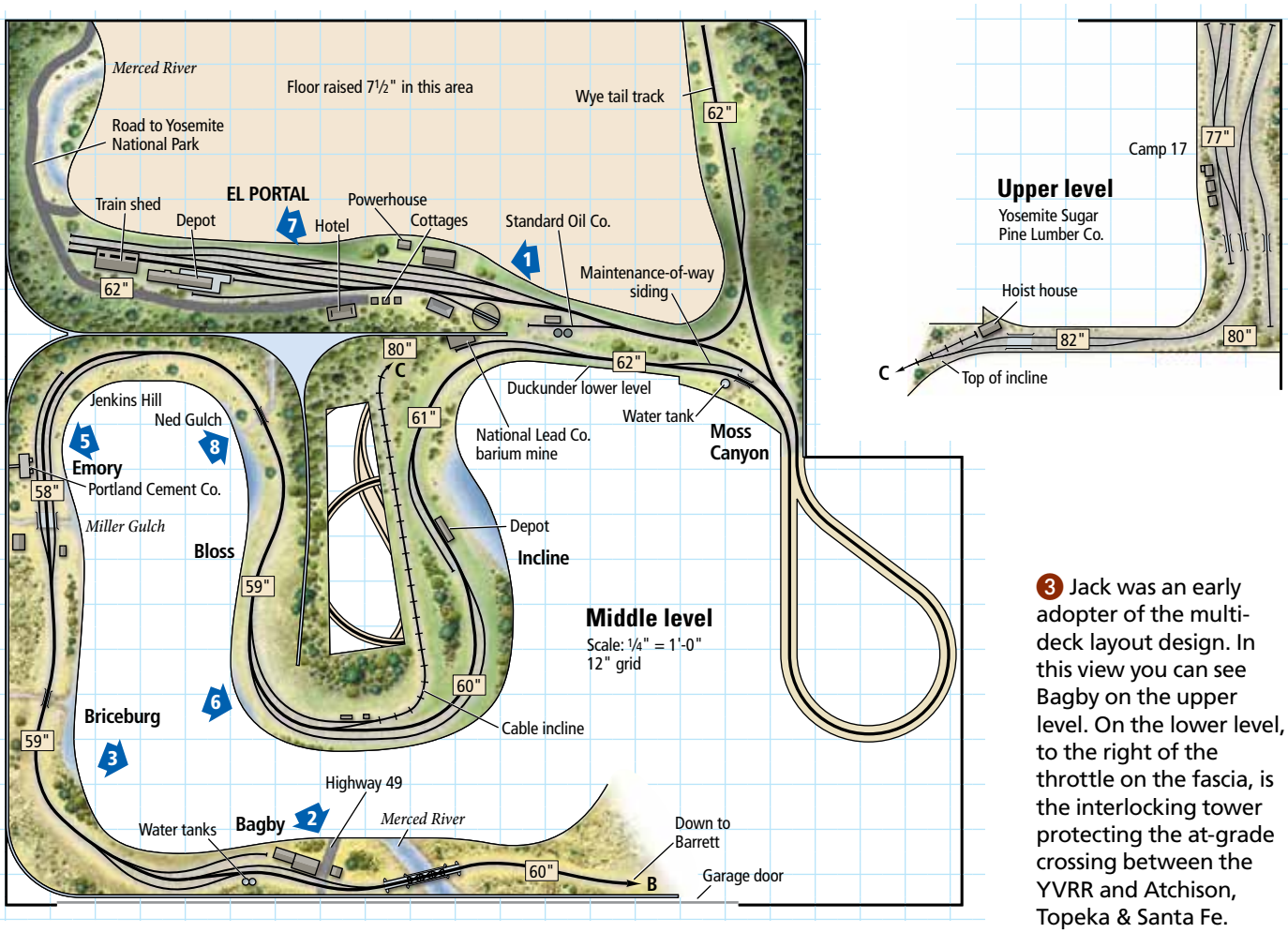
Scenery and track

The layout is set in August 1939. This decision impacted the locomotives and rolling stock I needed and the structures I built. The era also influenced the scenery. How? In the spring, the grass along the tracks in the San Joaquin Valley is usually green. In August, it's often a golden color, as California's rainy season typically ends before April and starts up again in November.

When I began work on the layout, I couldn't afford commercial track and turnouts. Fortunately, I attended evening classes at a nearby hobby shop on handlaying track and scratchbuilding structures. All of the track and turnouts on the YVRR are handlaid with code 70 rail, and I incorporated easements into the curves. The mainline is about 240 feet long. I drove the last spike in late 1989, nine years after I started building the layout.

Scratchbuilding structures

Decades ago I made a list of all of the buildings I needed for the YVRR. The list included around 110 structures to be



3 Jack was an early adopter of the multi-deck layout design. In this view you can see Bagby on the upper level. On the lower level, to the right of the throttle on the fascia, is the interlocking tower protecting the at-grade crossing between the YVRR and Atchison, Topeka & Santa Fe.

4 This aerial view shows the station and yard at Merced. The track arrangement in this yard (and others on the layout) follows the prototype but is about half as long.

scratchbuilt, all based on prototype buildings along the route. For example, Merced was the western terminal of the railroad. My layout features all of the buildings that were found in the prototype Merced Yard, including the nine-stall roundhouse [The scene is shown in the photo above. — *Ed.*]

The two-story station in Merced proved to be one of the more challenging structures to build. Though I had a few prototype images of the station, I didn't have any information on the actual size of the building when I started work on it. However, I had an image of the station with a man standing near it. I assumed he was 6 feet tall. Based on that estimate, I drew plans for the station and scratchbuilt a model of it.

Years later I learned someone had a copy of the original YV drawing of the station. After obtaining a copy, I learned that my model was 20% oversize. So I replaced that first model with a new one.

By that time, I knew that the main ticket office and dispatcher's office were on the track side of the building. So I included those rooms in the new model, along with periscopes so visitors could see into those rooms and also watch trains roll past the station.

Merced Falls

Timber from the logging operations near the east end of the railroad was shipped to Merced Falls to be cut into lumber. Merced Falls was a company town and the Yosemite Lumber Co. owned every structure there except the YVRR station and water tank. The structures in Merced Falls that I reproduced were limited by space to the box factory, hotel, dining hall, station, water tank, and the company store.

For decades I couldn't understand why a company town would have a hotel. After thinking about it for a while, it finally dawned on me. I realized that the hotel housed single male workers who didn't know how to cook their own meals or wash their own clothes.

5 Jack scratchbuilt more than 100 structures for the layout, including the limestone storage bin at Emory. He worked with Westerfield Models to get resin kits made of the YVRR 24-foot hopper cars used on the prototype.

6 Yosemite Valley freight train No. 8, with 2-6-0 No. 29 on the point, passes through Incline. The loaded log cars on the adjacent track will be picked up by the afternoon westbound, train No. 9.

The upper level

Running from Merced Falls on the lower level to Bagby on the upper level was accomplished via a helix east of Merced Falls and a hidden 10-foot-long section of track behind Merced. The hidden track emerges on the upper level and enters the small town of Bagby.

Except for a school, which I don't have prototype photos of, I modeled of all of the buildings in the town, including the hotel, garage, post office, store, water tank, and the Yosemite Valley RR station. I added full interior details on the second floor of the scratchbuilt station.

From Bagby the prototype tracks followed the Merced River to Emory, the location of a large quarry with limestone suitable for cement production. The quarry was located approximately 800 feet above the YVRR tracks.

The limestone was loaded into 8-ton cars at the top of a 2,100-foot incline. From there it was lowered down and unloaded into a 600-ton storage bin. The limestone was then loaded into YVRR 40-ton hopper cars, called rock cars, and transported to a packing house near Merced.

Fortunately a company, known today as Westerfield Models, developed a kit for a model of a similar, but longer, hopper car. I worked with Westerfield Models to develop a model of the 24-foot long YVRR hopper cars. The YVRR had 51 of these cars, so naturally I purchased a like number of kits. I'm not sure why I did that as I can only use 10 of them during operations on my layout. Maybe someday I will build the rest of them.

Challenging grades

From Emory the tracks continue along the Merced River to Incline, the station at the bottom of an 8,700-foot-long logging incline built by the Yosemite Sugar Pine Lumber Co. Portions of the grade of this incline were as steep as 78%. Yosemite Valley log cars were loaded in the woods high in the mountains north of Incline and then lowered down to the YVRR main line. Loaded log cars were spotted on a siding at Incline until the afternoon westbound, train No. 9, picked them up each day (except Sundays).

The railroad ended at a yard named El Portal, which means "The Gateway" in Spanish. The track layout of the yard at El Portal follows the prototype. The yard included a 60-foot turntable that was used to turn the locomotive and observation car before a wye was built west of El Portal in 1912.

7 Yosemite Valley 2-6-0 No. 29 is on the point of a passenger train waiting to depart El Portal. To the right of the station is an open-air train shed.

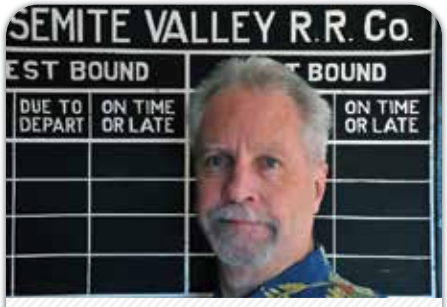
The station at El Portal was very different from others on the railroad. The exterior of the building featured peeled log posts of natural incense cedar and pine branches. Though my 1:87.1 model duplicates that appearance, I scratchbuilt the structure from styrene.

Calling it complete

Earlier I noted that I made a list of the more than 100 structures that I needed to scratchbuild for my 1:87.1 version of the Yosemite Valley RR layout. In June 2011, 31 years after I started work on my 20 x 20-foot multi-deck walk-in model railroad, I completed the last building on that list, a water tank.

I consider the YVRR finished. No more track to lay, no more scenery to finish, and no more structures to build. So, yes, with a carefully crafted plan it's possible to bring a model railroad to completion. MR

8 After picking up the loaded log cars at Incline, train No. 9 passes over a wood trestle as it makes its way west. Jack modeled the rock retaining wall from unused kitty litter given to him by a friend whose cat had passed away.



Meet Jack Burgess

Jack Burgess got back into model railroading when he was in his early 20s. He decided to model the Yosemite Valley RR, the subject of a book with many prototype photos. But Jack needed more images to faithfully re-create the line in HO scale, so he contacted the photographers whose images appeared in the book. Jack's collection of YVRR photos numbers around 4,000. He has also written a 400-page book about the railroad, along with more than 240 magazine articles.

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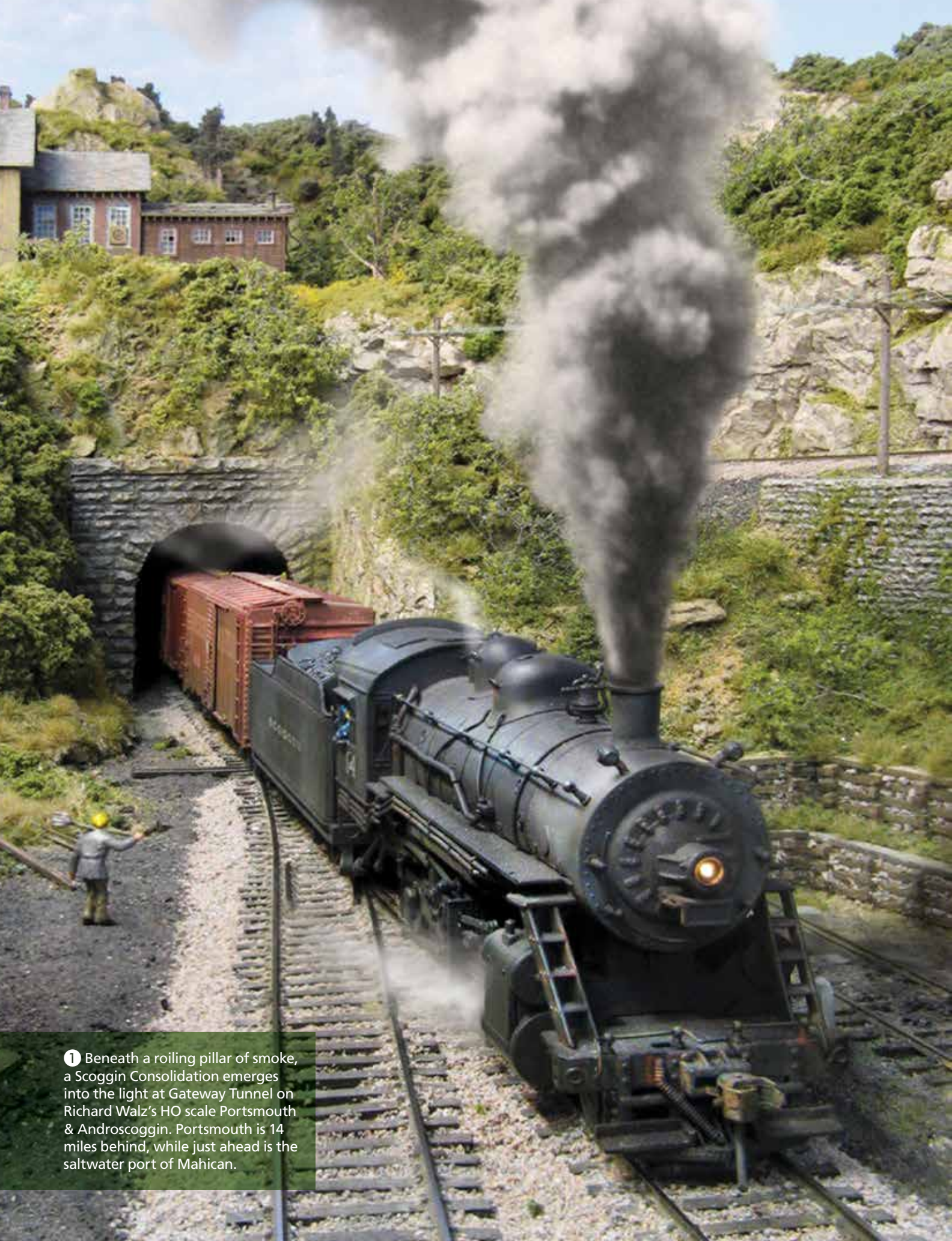


1 Beneath a roiling pillar of smoke, a Scoggin Consolidation emerges into the light at Gateway Tunnel on Richard Walz's HO scale Portsmouth & Androscoggin. Portsmouth is 14 miles behind, while just ahead is the saltwater port of Mahican.

A TOUR OF THE

Portsmouth & Androscoggin RR

The freelanced HO scale railroad is set in 1948 Maine

By Richard Walz • Photos by the author

I'm not sure what it was that finally kicked me into gear. But after decades as an armchair model railroader, I suddenly realized that at long last it was time to build an actual layout.

The above-ground parts of my house had all been appropriated, and so, following the footsteps of innumerable modelers before me, I descended into the basement. Though it was riddled with a century's worth of piping and pillars down there, amid that chaos was a clear area of 11 x 17 feet — enough space to build an enclosed layout room.

Adjoining that space was a 6 x 8-foot closet, unusable as part of a finished layout but with potential as a place for hidden track.

I never considered re-creating an existing railroad. It seemed easier to model an imagined line, one whose form I'd control. Choosing the railroad's most important component, its location, was easy. I live in New England, a place of pleasant towns, of green-cloaked, granite-boned hills, and of snug old harbors. There was never any doubt that New England would be the region I'd model and that one of those snug harbors would be part of my layout. I chose to model 1948, for the usual reason: it offered the use of either steam or diesel engines.

With full-sized photocopies of HO turnouts, paper templates of various curves, and some roughly sketched ideas, I spread sheets from a 48"-wide roll of paper over my whole layout space. And crouching on the floor, I began to draw.

After considering various possibilities I decided to make my layout a donut shape, surrounding a 4 x 12-foot operator's space. I'd use the adjoining closet to house two hidden reverse loops, one 7 inches above the other.

2 Within sight of the Gateway portal, a Scoggin roundhouse anchors Mahican's engine service facilities.

Leaving the lower loop, rails would enter the layout room, circle it twice, then re-enter the closet and its second loop. The layout plan was pretty simple — point-to-point operation across two laps of the room.

Even with a new modeler's delusions of grandeur, I knew that a whole railroad couldn't fit into my available space. Instead, I would model just a small section of a line extending in my imagination beyond my layout's boundaries. My railroad, the Portsmouth & Androscoggin — the "Scoggin" — would have its imagined southern terminus in Portsmouth, N.H. The line would immediately cross the Piscataqua River, passing northward through Kittery and Cape Neddick, Maine, before entering the Gateway Tunnel. From the tunnel the line would enter my layout room, passing through four modeled towns before renewing its imagined traversal of the real world. In its unmodeled northern miles the line would fulfill its primary purpose, the transportation of lumber and newsprint from Maine's northwestern forest.

At the end of a long, exhilarating day — I think the most productive day of my life — I had drawn a full-sized plan of my layout. Over the following years this plan helped me fine-tune my right-of-way, foresee the footprints of future buildings, and locate scenic features. Fully completing a couple of feet at a time, I slowly nudged my layout forward until it eventually circled the room.

A whistle now echoes along Maine's stony coast. Robed in hot steam, a train bursts from the Gateway Tunnel. It's time to tour the Scoggin.

3 The ancient and irresistible scent of coal permeates the Mahican servicing area.

4 Several hundred yards from the service area, passengers at the Mahican Station begin to titter and shuffle, to check their watches and fool with their bags. It's almost time. A train is coming!

5 Just ahead of the station, a Scoggin freight (the Newsboy, a dedicated train of newsprint), heads through Mahican toward Boston.

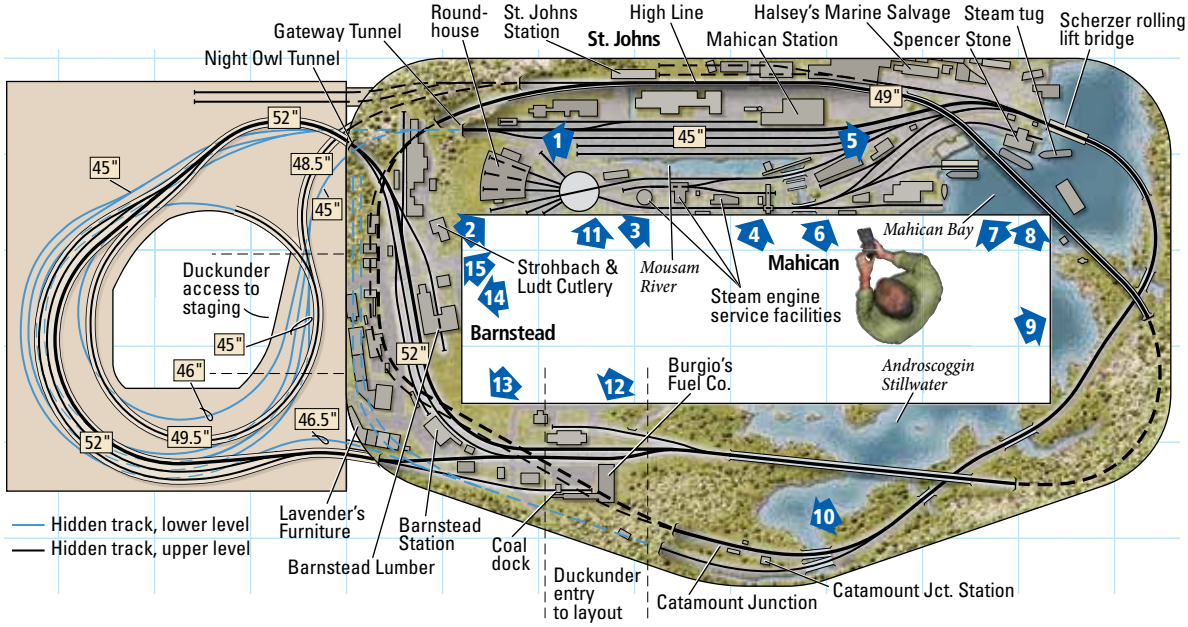
The layout at a glance

Name: The Portsmouth & Androscoggin RR
Scale: HO (1:87.1)
Size: visible: 11'-0" x 17'-3"; with hidden track: 11'-0" x 24'-3"
Prototype: none
Locale: Maine
Era: 1948
Style: freestanding with operator's pit and hidden staging
Mainline run: 150 feet
Minimum radius: 26"
Minimum turnout: No. 4
Maximum grade: 2.5%
Benchwork: T-girder
Height: 45" to 52"
Roadbed: Homasote on ½" plywood
Track: Shinohara code 70, Micro Engineering code 55
Scenery: extruded-foam insulation board
Backdrop: artists' oils on Sheetrock
Control: NCE radio DCC

Portsmouth & Androscoggin Railroad

HO scale (1:87.1)
Layout size: 11'-0" x 24'-3"
Scale of plan: ¼" = 1'-0", 24" grid
Numbered arrows indicate photo locations
Illustration by Kellie Jaeger

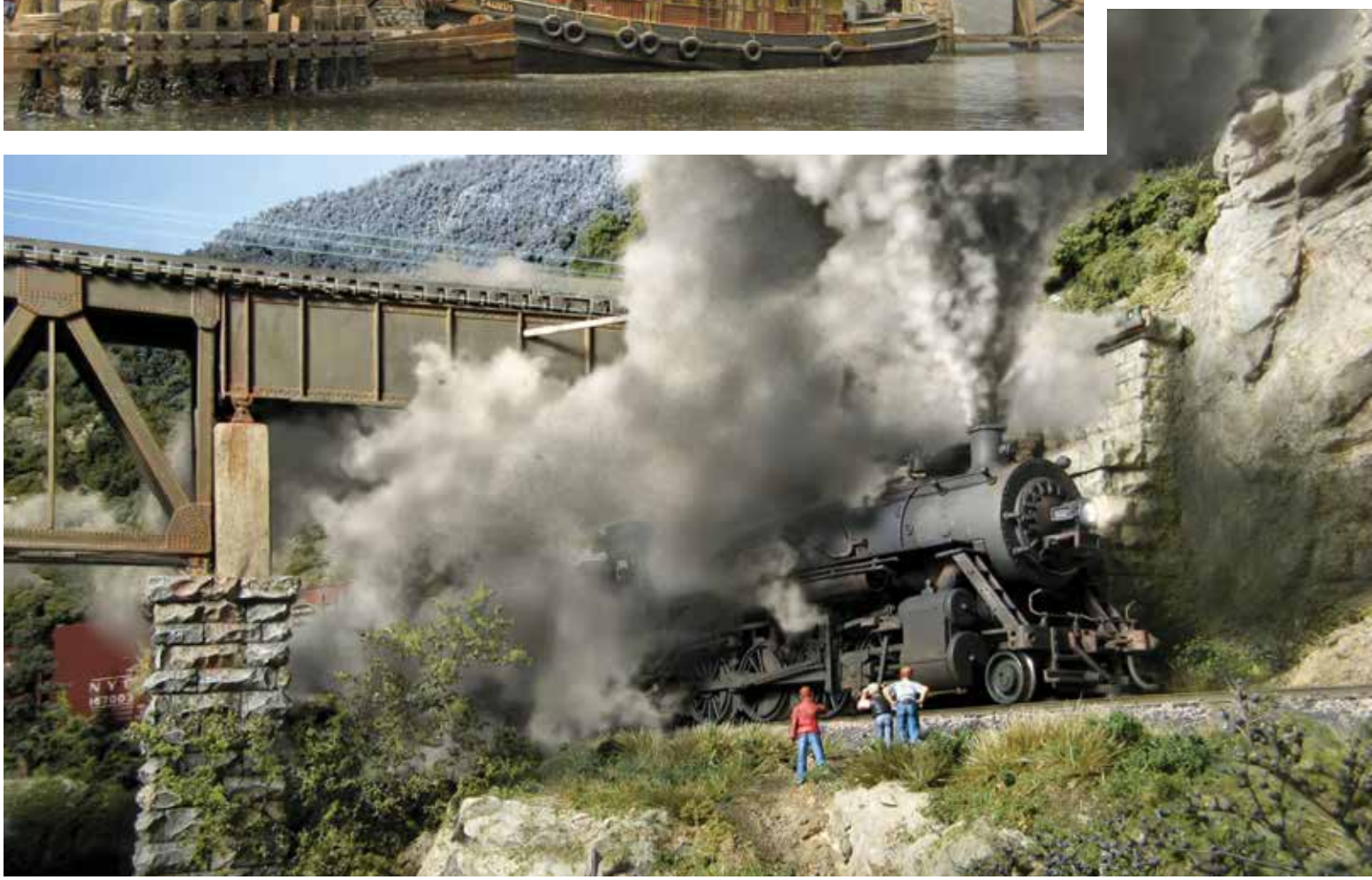
Find more plans online in the Trains.com Track Plan Database.



6 The eastern side of the city crowds around Mahican Harbor.

7 The smell of fish and salt, of oil and coal smoke, the cacophony of shrieking gulls, air horns, thumping diesel engines, and tumbling bilge, the tangle of entwined ships, trucks, and trains — all coexist in the dense confines of Mahican Harbor.

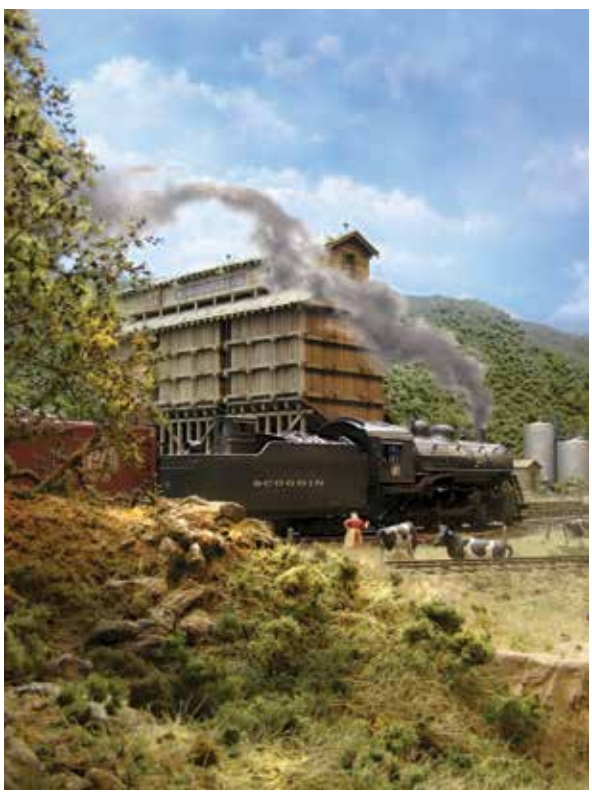
8 Leaving the city, a freight crosses Mahican Bay on a Scherzer rolling lift bridge. Below, the steam tug *Taurus* positions a barge of crushed rock.



9 After the bay, Maine's filigreed coastline bends increasingly to the east. The Scoggin, though, continues northward, leaving tidewater behind and encountering its first significant grade. Here, three adventuring boys suddenly feel the earth tremble beneath them. The sky disappears in swirling smoke. The roar of an emerging Consolidation hits them like a plank. Seventy-eight years later they will remember it still.

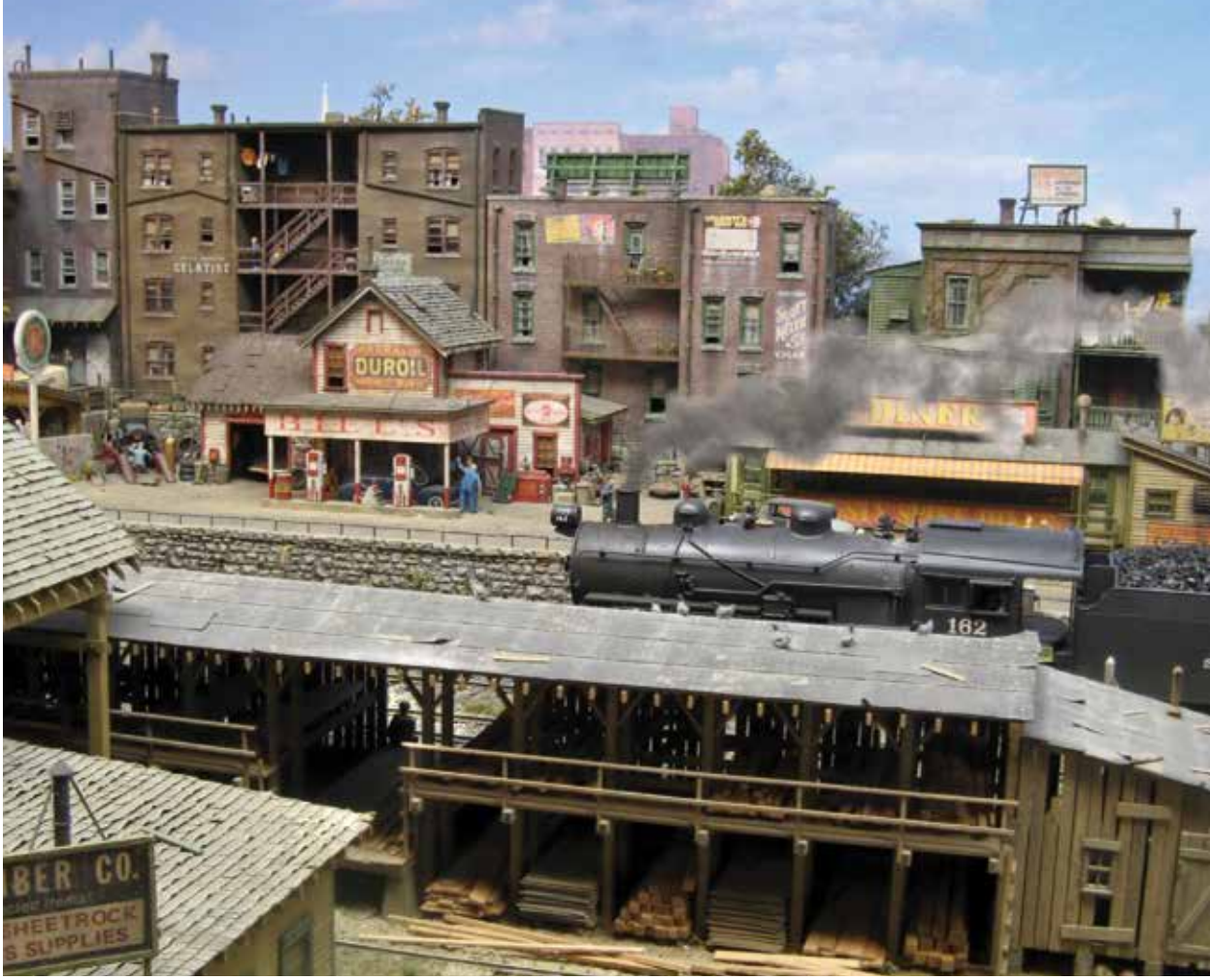
10 In the hills beyond Mahican Bay, the solitary Catamount Junction Station is passed.

11 Nine miles after the junction the main line enters St. Johns. The station here is atop the "High Line," a mile-long causeway bisecting the city. (Local wags call the High Line the "Little Chinese Wall," an homage not to China's Great Wall, but to Philadelphia's Chinese Wall that held the tracks leading to the Pennsylvania RR's Broad Street Station.)



12 After St. Johns the Scoggin ascends steadily, its grade maxing out at over 2 percent. Emerging from a rock cut, its climb completed, a freight passes the towering coal dock outside of Barnstead.

13 As in other small towns across America, Barnstead's station in 1948 is a center of activity. Bundles of newspapers from Portsmouth and Boston will spread the world's news through the town. Empty milk cans wait for refilling. And in a scene replayed each day, passengers shuffle with increased excitement as their train time approaches.



14 Sitting on Barnstead Lumber's shaded delivery dock, an employee enjoys a perfect view of the afternoon's parade of trains.

15 North of Barnstead a blade of rock is pierced by the Scoggin's main line. When the railroad enters the tunnel it leaves behind its modeled incarnation; when it exits the tunnel's far side it once again becomes an imaginary line, traveling through the wider world.

Meet Richard Walz

A graduate of the Rhode Island School of Design, Dick has illustrated children's books for Sesame Street, Disney, Step Into Reading, and others. He and his wife, Sarah, live in western Massachusetts in sight of the Connecticut River line of the former Boston & Maine. Dick takes great pleasure in watching Amtrak's *Vermonter* roll though town twice daily. Sarah, not so much.

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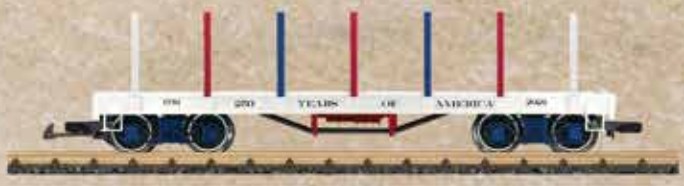

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By Cody Grivno

TIPS FOR CONCEALING RISERS

Structures and scenery, complemented with lighting and photo backdrops, add interest to the lower level of an HO scale model railroad

By Dave Abeles // photos by the author

Dave Abeles used scenery and structures to conceal risers on the lower level of his HO scale Onondaga Cutoff layout, helping create a satisfying new scene. The inset image shows what the area looked like prior to remodeling.

Central New York, the setting for my HO scale Conrail Onondaga Cutoff layout, is an area with tremendous natural beauty. Rolling hills and valleys make up the Finger Lakes region of The Empire State. As you travel north the topography softens. The hills flatten out and the valleys become shallower. As you approach the Great Lakes, the sky seems to open wide across the piedmont. It's well suited to east-west transportation as traversed by early routes like the Post Road, the Erie Canal, and later the arteries of commerce to which the canal gave rise: the New York Central's Water Level Route and Interstate 90.

From the beginning of layout construction, I knew that re-creating that open-air feeling was going to be a tall order, especially at Control Point (CP) 294. This scene, on the layout's lower level, has just 11" of vertical space over the rails and is hemmed in by a series of wooden risers supporting the top level like a row of columns. It's a tough spot to maintain a scenic approach consistent with the rest of the model railroad. Even the urban and industrial backlot areas west of Syracuse and through Solvay, N.Y., have glimpses of faraway hills and skies. The challenge of modeling those geographic features required a lot of thinking. Sitting on the problem for a few years allowed a plan to grow.

Visits to model railroads during operating weekends in 2014 provided a new idea. Several layouts featured lower decks, but a few highlighted a small area of full scenery installed in the manner of a shadow box. Some were visible through a hole cut in the fascia; others had physical barriers that blocked the continuous view.

Layout owners complemented traditional scenery techniques with backdrops and light-emitting-diode strips, giving operators and visitors a window into a different part of the modeled world. I decided to try a similar approach with CP294 on my layout. Though my layout is HO scale, you can easily adapt my techniques for other modeling scales to add interest to the lower level of your model railroad.

STEP 1 Lighting and backdrops

Lighting was the first thing I needed to address. I visited the lighting aisle at The Home Depot to see what products were available. I found sunny white light-emitting-diode strips that featured fading capability and a remote control. This was ideal for my fades to night and day operating sessions [Learn more about these in Dave's article "Running on the dark side" in the September 2019 issue of *Model Railroader* magazine. — *Ed.*] The new LED strip lighting brightened up the entire area.

Though this was a major improvement, it also had a downside. The new lighting drew attention to the existing backdrop. After I'd finished installing the photo backdrop on the upper level, I used the offcut pieces for the less-visible areas on the lower level, such as CP294 1. The scraps served their purpose when the area was not well lit. The improved lighting made it apparent something better was needed for this area.

An extensive review of online sources led me to a BackdropsOnly.com. On the company's website I found a photo backdrop called Upstate New York offered in lengths up to 12 feet. A quick conversation with the company helped me order what I needed to fit in this tight location.

Upon delivery, I was impressed. The quality was evident and the scene was evocative of the distant hills and big skies found along the prototype Conrail line.

My friend Ralph Heiss helped me cut the backdrop pieces to fit the space 2. Installation was tricky, but went well 3. The color palette of the backdrop became the base for the scenery in front of it.

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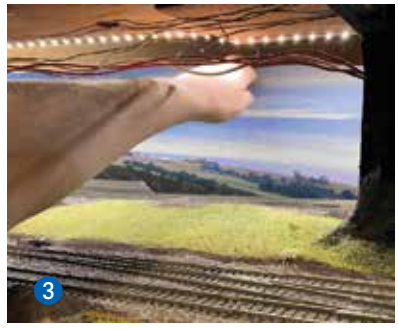
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STEP 2 New life for an old tower

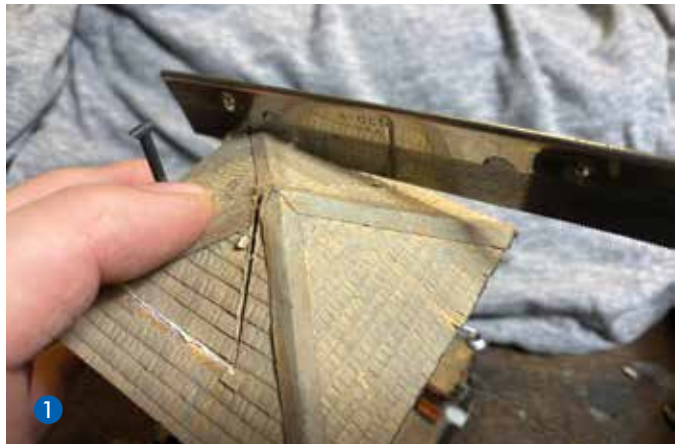
I needed to conceal the five risers supporting the upper level as much as possible. First, I painted them a dark color. This helps the eye skip over any spots that aren't fully covered by structures or scenery materials.

Next, I needed to figure out how to blend each riser into the scene in a manner consistent with the surroundings. I used different treatments on the risers to ease their visual impact on members of my operating crew and visitors.

The easternmost riser was at the junction of the main line with Island Yard, the locomotive staging yard for Onondaga Cutoff operations. The location was well-suited for a tower.

I'd come across a bunch of buildings and details for a 1950s-era layout at an estate sale. Among the items was a small, generic New York Central branch line tower. It was scratchbuilt from cardstock and used windows from an old Atlas kit. The model had seen better days — it was damaged, dusty, dated, and faded. However, it would fit the bill for the 1990s era of my layout. Some rehabilitation was in order, most notably new paint, fresh weathering, and updated details. The tower proved a solid starting point to represent an old structure on its last legs.

First, I measured the riser and surrounding area several times. I then marked out the cuts on the tower. Next, I started cutting the tower, proceeding slowly and letting the razor saw do the work 1. After a little sawing, I took the tower to the location to check the progress against the riser.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STEP 2 New life for an old tower (Cont'd)

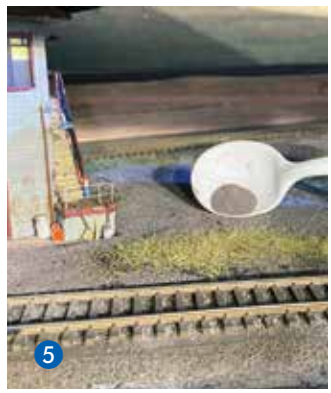
Slowly and steadily, the cuts came together and a riser-sized slice opened in the back of the tower. From the front, the removed section of roof is barely noticeable 2, previous page.

The now-removed back of the tower provided a nice add-on to the left side, obscuring the riser and wiring 3. I modernized the details, installed interior and exterior lighting, and added the station sign Island.

The finished tower surrounded the riser as envisioned. Next, I built up the base of the structure and blended it into the existing scenery with Sculptamold, a popular papier-mâché-like product 4.

After the Sculptamold had cured, I painted it flat black and let it dry. I added an access road using N scale Yard Mix from Arizona Rock & Mineral 5. Along the edges of the road I applied Noch static grass and flowering late summer grasses and shrubs from Scenic Express. As you can see in 6, I masked the track to protect it from errant glue while I was applying the static grass.

4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STEP 3 Foliage solutions

The next two risers were in spots that would be best camouflaged as thickets of trees and shrubs. Clearances were tight, though, so I built up the scenery in thin layers.

I started by painting the risers black and dark brown. After the paint had dried, I applied various scenery materials. I used a hot glue gun to attach Woodland Scenics foliage, which I'd stretched into a thin layer 1. On top of that I added dark green foliage clusters from the Missouri-based scenery manufacturer.

Then I applied a layer of Silflor late summer maple foliage (No. 930-23) 2. The canopy can be stretched to a thin layer and glued in place, providing visible texture in minimum depth.

I finished scenicking the sides of the risers with SuperTrees from Scenic Express 3. I installed the trees carefully, ensuring they didn't impede passing trains 4. With some basic scenery

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STEP 3 Foliage solutions (Cont'd)

work, the second and third risers suddenly receded into the backdrop.

The eastern side of the fourth riser was already hidden, but the western side needed some foliage. Sculptamold again helped blend in the terrain 5, followed by paint, ground foam, and SuperTrees.

The westernmost riser was installed at a 45-degree angle, sloping out to support the upper level roadbed. I concealed the riser with foliage and ground cover.

To wrap up this part of the project, I covered the entire area with static grass and shrubs that I fashioned from leftover SuperTree scraps 6. By layering the scenery, I was able to match the coloration of the lower level to the upper level.

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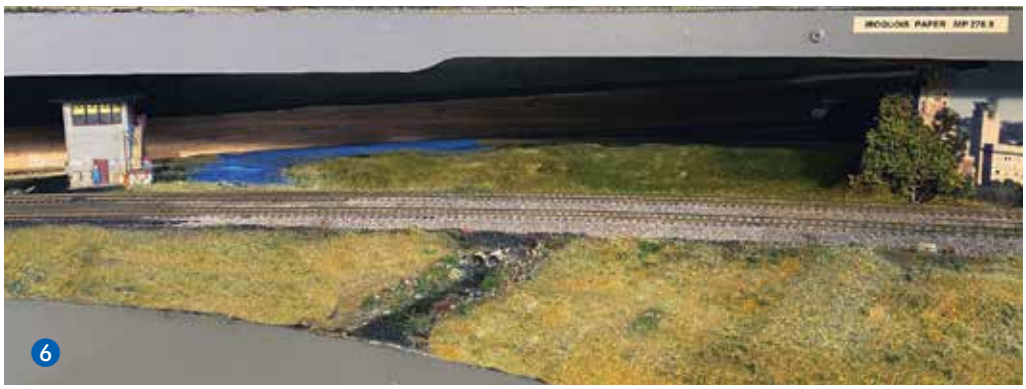
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STEP 4 Finishing touches

Once the risers were concealed and the static grass was in place, I added some cattails to low-lying areas to suggest the swampy ground that's common across this region of New York 1. I also included some wildflowers here and there to break up the colors and tie the scenery into the new backdrop.

The employee access road, complete with a grade crossing, provided another visual entry point 2. The addition of figures and vehicles suggests railroad employees reporting to work and transferring to railroad-owned vehicles or train service 3.

Suddenly, what had been a visually confounding area of the layout became a completed scene with an interesting view. When visitors wind their way through the layout room, they can see two scenicked layers of the Onondaga Cutoff, each with unique scenery and backdrops. MR

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By David Popp

Moving upscale and down-gauge

David Popp's On30 Olympia & Sand Creek Ry. replaced his former N scale New Haven layout. The larger size has made modeling work easier as he faces the effects of aging. David Popp photo

Welcome to the first edition of Behind the Scenes at MR, a new monthly column that will be devoted to reports on the activities of the entire MR staff, including those of us who work in the Trains.com Video department, as well as our team of contributing and consulting editors. We may discuss railroads still in the planning stages, progress on those already underway, field trips we've taken, and interesting hobby personalities we've chatted with from modelers to manufacturers — pretty much anything that we think you may find informative and entertaining.

For this inaugural commentary, I'd like to talk about a concern that quite a few of us are facing — aging and its effect on our modeling work. As we get older, we may notice our hands are less steady and our eyesight isn't what it used to be. As a clear example, watch any of my videos from the past 5 years, and you'll notice my hands, which have never been great, are even more unsteady than before. I'm also switching glasses constantly or simply working without them by placing my face about 6" from the work at hand. They say, "With age comes wisdom," and for me that meant knowing when it was time to change how I built models.

Many of you still recall my N scale layout based on a part of the New Haven RR. In fact, I regularly receive questions about that railroad with the assumption that I still have it. Unfortunately, my physical ability to work on those small models had already diminished more than 10 years ago, so my N scale Naugatuck Valley RR found a new home. But building model railroads is in my blood, and I've kept very active simply by working in a larger scale.

For those of you who haven't kept up with the offerings on Trains.com Video or its predecessor, MR Video Plus, in 2014, Kent Johnson and I started a 22" x 78" On30 layout (O scale models riding on HO gauge track) for the Olympia Logging video series. It's a fictional logging line set in the mountains of the Pacific Northwest. Why there? Kent loves the region, and the mountain scenery also helped make the shadowbox layout seem a lot deeper than it really is.

Project railroads are great when we're building them. However, they do tend to pile up around the office once they're finished. With my N scale layout moved out, I volunteered to take the Olympia home with an eye towards expansion. As a result, we shot a second full video series for Olympia from my basement, which involved cutting off one end and adding another 6'-6" section to it. The revised 13-foot layout now featured a full sawmill and logging camp — both things that were just hinted at on the original layout. These were great projects, and their larger size make working on them enjoyable. If you're interested, you can read about scratchbuilding the sawmill in the special issue *Model Railroading: The Ultimate Guide 2019*. You can also see the finished 13-foot version of Olympia in *Great Model Railroads 2020*.

THEY SAY, "WITH AGE COMES WISDOM," AND FOR ME THAT MEANT KNOWING WHEN IT WAS TIME TO CHANGE HOW I BUILT MODELS — DAVID

In 2019, I started yet another 6'-6" addition, this time modeling a small town I called Sand Creek and a nearby gravel pit. While the logging operation was fun, I wanted to give the little railroad something else to do "on the other side of the woods." The tiny town features a station, freight house, cattle pen, and a model of my wife's family's 1830s Illinois farmhouse. The house was built by Renee Grosser from just three photos of the structure, and it was part or a project series featured on MRVP. While Illinois is a long way away from the Pacific Northwest, it was a fun personal detail to include on the layout.

In many ways, On30 saved the hobby for me. It's much easier for me to work on, and the size of the models, even though they are narrow gauge, make for an impressive layout in a moderately compact space. Its slow-pace operation is also a lot of fun.

I'm close to completing the Sand Creek section, so keep your eye out for it in MR in 2027. And I've been developing plans for at least one more addition, modeling the railroad's "other end of the line." Rest assured, my On30 adventure is far from over, and I'll provide updates when Behind the Scenes cycles back to me. In the meantime, enjoy the commentaries by others each month. I know I'm looking forward to them! MR

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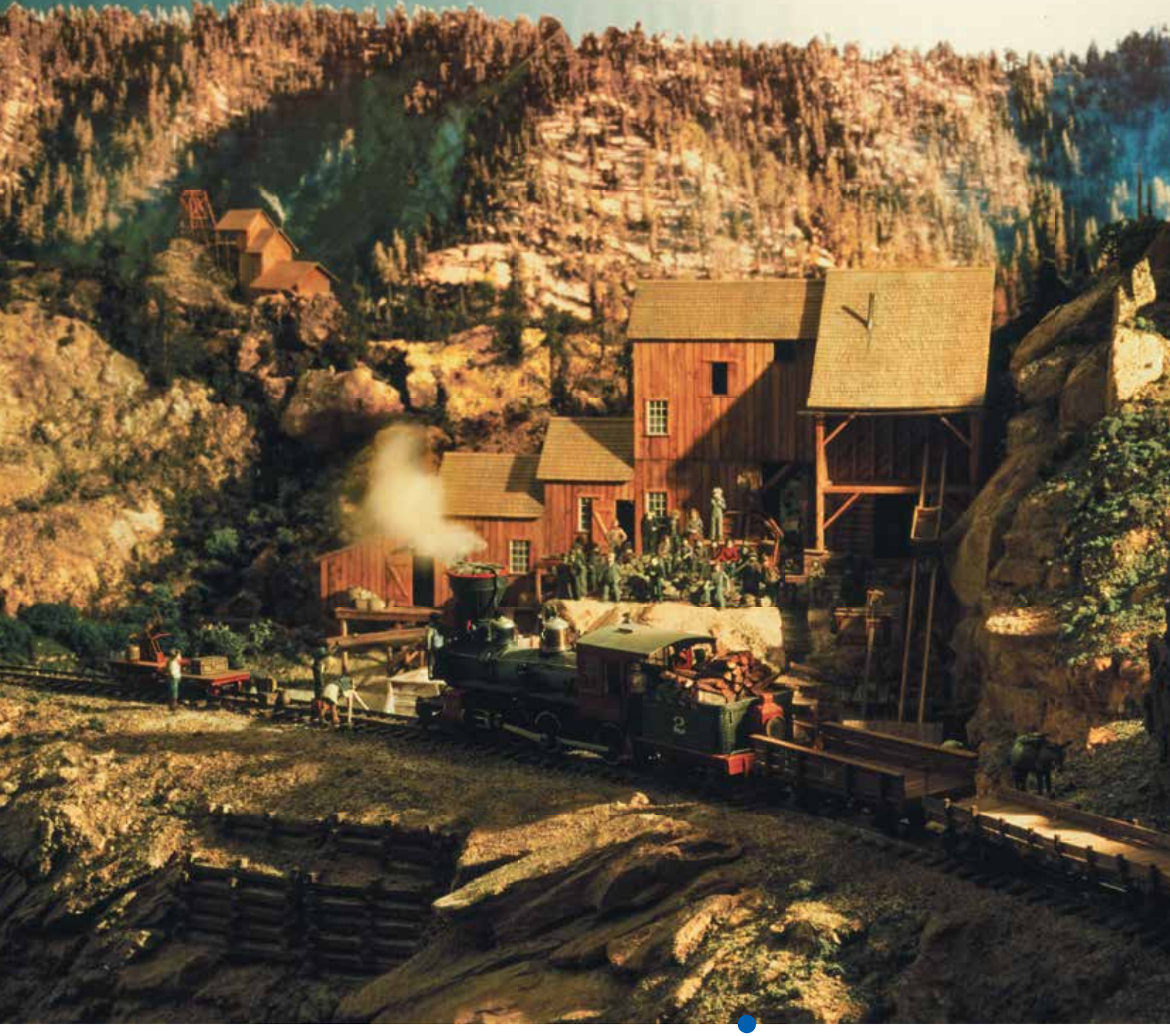
GREAT NORTHERN RAILWAY

The Great Northern SD9 has just finished its afternoon trick, switching out five empty cars to the Palouse interchange. Their work done, the crew has gone to beans before they pick up two more cars from the interchange track. The crew will switch more cars on their journey back to Spokane, where they will tie up. Mike O'Connell created this scene. His Pacific Railway & Navigation Co. will be featured on the layout tours at the NMRA National Convention in Tacoma, Wash., in August 2027.



A local photographer has been hired to record the latest offering prior to it being loaded on the waiting Devil's Gulch & Helengon train. Ron Foreman scratchbuilt this simple, rough-boarded quartz gold mine named Findley's Fifty board by board from a single black-and-white photo of the actual mine (Lecompton), once located near Nevada City, Calif. Some of the people in this photo are colorized cutouts that Ron photocopied to HO scale from the original black-and-white photo.

Ron Foreman photo

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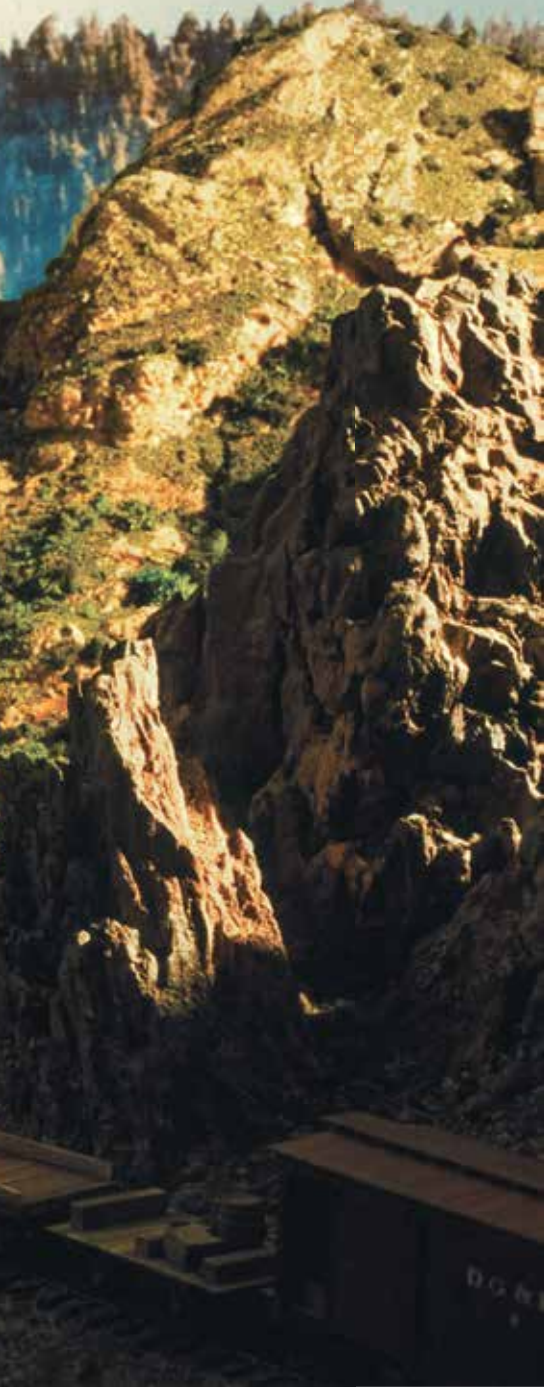
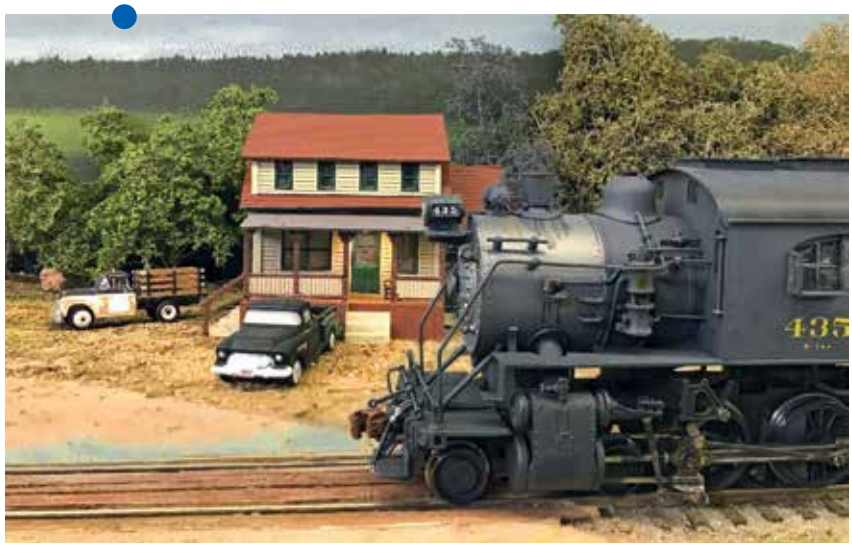


A Central Railroad of New Jersey Class K1 4-8-0 rolls past a rural home near Lehighton, Pa., on the upper deck of the West Island Model Railroad Club's HO scale Allegheny & Western RR. The K1 is moving a cut of coal hoppers up the branch line to Wilkes-Barre. The 435 is a NJ Custom Brass import, with DCC sound installed by Vincent Lee, who also painted and weathered the model. The home was built by member Al Kaiser from an old wood kit. The club relocated to Hicksville, N.Y., after an earlier layout was featured in *Great Model Railroads 2007*. Vincent Lee photo



Twenty minutes after leaving St. Louis Union Station and heading west with the *River Eagle*, MoPac E8 No. 2022, a Broadway Limited Imports model, meets the inbound *Colorado Eagle* at a rain-swollen Missouri River crossing on Thomas O'Connor's N scale layout. The passenger cars are from a Micro-Trains five-pack. The two side-by-side, single track bridges the MoPac passenger trains are on are old and likely Vollmer products. Thomas O'Connor photo

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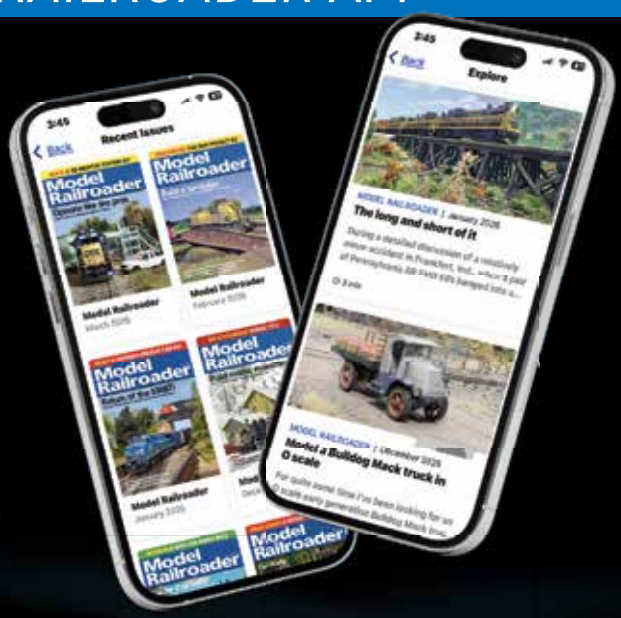

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Schedule of Events

CA, SACRAMENTO: International Railfair. November 14-15, 2026. Cal Expo, Building C, 1600 Exposition Blvd., Sacramento, CA 95815. Saturday 10am-5pm and Sunday 10am-4pm. Admission: At Gate- Saturday $15, Sunday $12; Online- Saturday $12, Sunday $10 (plus fees). 12 and under free. Operating Layouts, Vendors, Kids Activities, on-site food and more! For updates, visit: internationalrailfair.com or contact Tom Campbell: tom.c.irf@gmail.com

FL, BROOKSVILLE: Regal Railways presents Toy Trains & Hobby Show. Hernando County Fairgrounds, 6436 Broad St., Brooksville, FL 34601. Saturday, September 12, 2026. 9:00am-2:00pm. Admission: $6.00 adults, children under 12 free. Vendors and model train layout. Lunch available. Contact: Joe at 727-244-1341 or visit: www.regalrailways.com for more information.

ID, CALDWELL: Southwest Idaho Train Show. O'Conner Fieldhouse, 2207 Blaine St., Caldwell, ID. September 19-20, 2026. Saturday, 10AM-5PM; Sunday, 10AM-5PM. Admission $5.00, $6.00 w/card. Under 12 free w/adult. Clinics, operating layouts, exhibits, rides, vendors, all scales. Concessions available & free parking. Sponsored by Caldwell Model Railroad Club & Historical Society. Contact Dave 208-936-5730 or visit www.cmrchs.org

KS, TOPEKA: 5th Annual Topeka Model Railroad Show & Swap Meet. October 3-4, 2026. Saturday 9am-4pm; Sunday 9am-3pm. 5720 SW 21st St., Topeka, KS 66604. Helping Hands Humane Society will receive half of all door sales as a direct donation. Admission: $8, children under 12 FREE with paid adult. Info: Phil Skow (text) 785-221-2174

MI, LINCOLN PARK: Lincoln Park Train Club's Semi-Annual Train Show. Saturday, September 12, 2026, 11am-3pm. Kennedy Memorial Building, 3240 Ferris Ave., Lincoln Park, MI 48146. Admission is $5.00, under 12 FREE. Early Birds at 10am is $10.00. Tables $20.00. For info: Bob at 734-675-5712

MN, BLOOMINGTON: The 46th National Narrow Gauge Convention. September 2-5, 2026. Doubletree by Hilton Hotel, 7800 Normandale Blvd., Zip: 55439. Admission: $159 (covers all days). More than 75 vendors of all scales, 85 outstanding clinics, 40 home and club layouts on tour, contest room with models and photos. Free parking at hotel. Information: www.2026nngc.com

NC, RALEIGH: Neuse River Valley Model RR Club 42nd ANNUAL FALL TRAIN SHOW; DATES: November 7-8, Sat 9-5; Sun 10-4. Graham Building at NC State Fairgrounds. 500+ vendor tables, 16 operating layouts. Display your models at our Craftsman's Showcase. Admission: $10 covers both days, children 12 and under free with adult. Visit www.nrvclub.net

NC, WINSTON-SALEM: Southbound Model Railroaders and Mike's Trains proudly present Southbound Model Train Expo 2026. August 29 – 30, Saturday 9am-4pm, Sunday 10am-4pm. Fairgrounds Event Center. Shorefair Drive, gate 7. Admission $10.00. Children 12 and under free with adult. 300+ vendor tables. Operating layouts. Free parking. Additional info, email: southboundtrainshow@gmail.com

NJ, WAYNE: ECTP and Collectibles LLC presents The Wayne Train Show. P.A.L. Hall, 1 Pal Drive, Wayne, NJ 07470. Sunday, August 23, 2026, 9:00am-2:00pm. Admission: $7.00; under 12 free with adult. John LaLima 732-845-5966. Go to www.eastcoasttrainparts.com and click on The Wayne Show.

OH, BEREA: The 52nd Annual Great Berea Train Show hosted by the NMRA. Saturday, October 3rd, and Sunday, October 4th. 10:00am to 4:00pm both days. Cuyahoga County Fairgrounds in Berea, Ohio. Admission $10.00. Under 16 free with an adult purchase. 70,000 square feet of model railroading. Show Contact: David James showmanager@thegreatbereatrainshow.org 440-785-9907. Visit: www.thegreatbereatrainshow.org

OH, COSHOCTON: Inaugural Coshocton Train Show, Coshocton County Career Center, 23640 Airport Rd., Saturday, October 17, 2026. Hours 10am–3pm. 70+ vendor tables starting at $15/table. All scales. $5 Admission; kids 12 and under FREE. Food available by donation. FREE Parking. Proceeds benefit Coshocton Model Railroad Club - Open House at 2pm. Info: 330-473-7466; coshoctontrainshow.com - Sponsored by LANSON TRAINS

OH, DAYTON: 50th Original Dayton Train Show. The New Montgomery County Fairgrounds, 645 Infirmary Road, Dayton, OH 45417. November 7 & 8, 2026. Saturday 11am-5pm and Sunday 11am-4pm. Admission: $10.00 per adult, children 12 and under free with paid adult. PO Box 341233, Beavercreek, OH 45434, 937-424-6413. Email: NMRA.Div.3@gmail.com or visit: www.DaytonTrainShow.com for updates.

PA, LOPEZ: Lopez Train Meet. Hosted by St. Vladimir's Orthodox Church. Saturday, September 19, 2026, 9am-2pm. St. Vladimir's Orthodox Church Hall, 127 Main St., Zip: 18628. Admission: Adults $5. Children under 12 free w/adult. All scales & gauges welcome. Vendor tables, test track, railroadiana, memorabilia, model trains and more! Free parking. Food available. Contact: Gregory White, trainmaster726@gmail.com

TX, AUSTIN: Austin Train Show. Over 25,000 sq.ft. of railroading fun for the whole family! Palmer Events Center, 900 Barton Springs Road, Austin, TX. August 29-30, 2026. Saturday 10am-5pm, Sunday 10am-4pm. Admission: $9 online, $10 at the door (includes both days), 12 and under FREE w/adult. Kids train ride, vendors, model/Lego railroads, tour, clinics. Visit: austintrainshow.org

TX, TEMPLE: 44th Annual Temple Model Train & RPM Show by CentraMod Inc. Central Texas Area Model Railroaders. Frank W. Mayborn Convention Center, 3303 North 3rd St., Temple, TX 76501. September 19-20, 2026, Saturday 10am-5pm and Sunday 10am-4pm. Admission: $10, Seniors & Military w/ID $9, 12 and under free w/adult. FREE Parking! Additional information: 254-760-3761 or www.centramodrr.com

WA, BATTLE GROUND: Southwest Washington Model Railroaders, Great Train Swap Meet. Saturday, September 26, 2026. 9:00am, Beat-the-Crowd, $10 admission. 9:30am-2:30pm, Adults $5, Students $3, under 6 FREE w/adult. Battle Ground High School Gymnasium, 300 W. Main St., Battle Ground, WA 98604. Take N. Parkway Avenue to Free Parking. Vendor tables $25.00. Info: Larry Sprenkel, 360-619-8899, Larry.sprenkel@gmail.com

WA, SPOKANE: River City Modelers Fall Train Show. Spokane Fairgrounds, 404 N. Havana. Sunday, October 11th, 9:30am-3:30pm. Admission: $8 for adults, 12 & under free. 200+ tables of Railroad-related items for sale, operating layouts, Free-MO, Operation Lifesaver & more. Free Parking. For table rental or general info, contact: Shirley Sample, 509-991-2317 or email: shirley@busnws.com

WI, MONROE: Green County Model Railroaders 48th Annual Model Train Show & Swap Meet. The Stateline Ice and Community Expo, 1632 4th Avenue West, Monroe, WI 53566. September 26-27, 2026. Saturday & Sunday, 10am-4pm. For information contact Kevin Johnson, 608-558-9332, or visit: www.gcmrrinc.org

WI, ONALASKA: The 35th Annual Great Tri-State Rail Sale. Onalaska Omni Center, 255 Riders Club Road. Saturday, October 24, 2026. 9:00am-3:00pm. Admission $8.00, under 12 free with adult. 300 vendor tables. All Scales; Model, Toy & Antique Trains & Memorabilia. Information: 4000 Foundation, PO Box 3411, La Crosse, WI 54602, 608-498-9522. www.4000foundation.org

All listed events were confirmed as active at the time of press. Please contact event sponsor for current status of the event.

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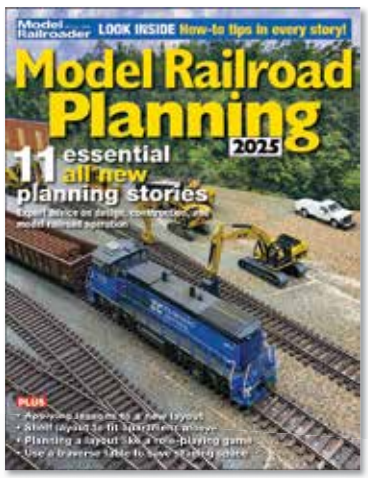

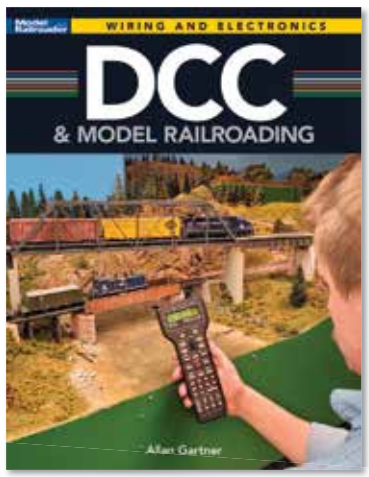

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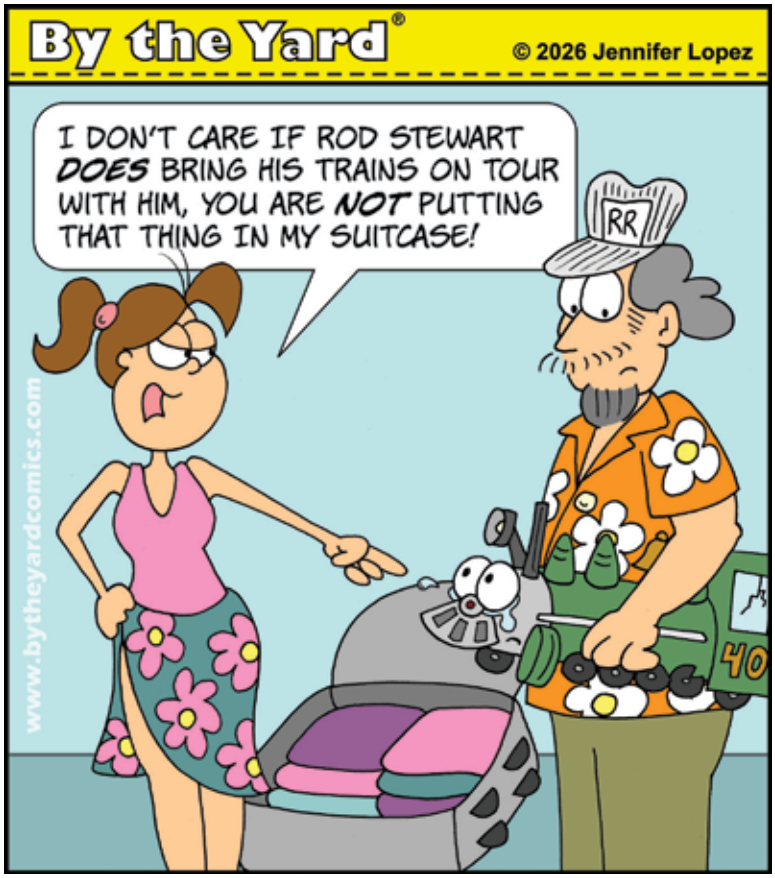
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Model Railroader MAGAZINE

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Bo Sis built an HO scale Pennsylvania RR layout focused on steel and coal.

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By Tony Koester

Integrating MRP (and GMR) into MR

I'll depart from my usual hobby-oriented commentary this month to add some background information on what we hope will be an important addition to each issue of MR. As Editor Eric White has noted in his editorial, among the enhancements he's made to this magazine are the merger of the two annuals — *Model Railroad Planning* and *Great Model Railroads* — into *Model Railroader*. As MRP's editor since it was launched in 1995, I'd like to explain why I think this is an important step forward for MR.

First, however, let me stress that our loyal MRP readers will not lose any content. Each issue of MRP contained 10 to 12 feature articles. With one "MRP" feature in each issue of MR, the number of articles you will receive annually remains the same.

My job also remains as before. Those contributors who worked with me in the past or have what they consider article proposals should still direct their inquiries and feature packages to my attention at consulting.editor@firecrown.com.

Let's reflect on MRP's mission for a few moments. It was created to help modelers do a better job of planning and then designing their model railroads, or making enhancements or additions to extant layouts. But by making it a separate, annual magazine, too often it failed to reach those who most needed the help: modelers getting started in the hobby. They are often on a limited budget, and buying another magazine was not high on their list of priorities. I suspect we also came up short by not offering a bundled subscription package where readers could subscribe to MR and MRP.

I didn't, and won't, choose feature material that caters only to the needs of beginners. We're all beginners in one sense or another. We're all good at some things but less so in others. We may have the best-laid and ballasted track in the region but haven't a clue how to operate an electrostatic grass applicator or merge digital photos into a panoramic backdrop.

So I did my best to obtain material that I thought would be interesting, even inspiring, to beginners and more experienced modelers alike. If it had a touch of humor, so much the better. That will continue in the MRP-bannered features that will now appear in MR.

Time for a change. I live and work in New Jersey, hundreds of miles from MR's offices in Brookfield, Wis. So, I usually have no more idea about what's in the next MR than you do. But when we decided to merge MRP and GMR into MR, discussions segued into whether it was time to make a few other upgrades. That led to the new Behind the Scenes at MR column. On a rotating basis, it will give each of those listed on the masthead a chance to tell you about our model railroad plans or accomplishments. The September issue was selected to announce the enhancements, as that's when *Great Model Railroads* readers would expect to see the 2027 issue. Rather than the one-per-month approach we're using for MRP, I understand the November MR will include a lot of GMR features.

Contributors will be encouraged to write in a style that is as entertaining as it is informative. This will ensure you receive not merely a useful set of modeling instructions but also what I've always called a "good read." If you think about it, when we pass along information to someone orally, there is often some good-natured joking going on. So if we write conversationally, our articles should be more fun yet equally useful to read.

Model Railroad Planning and *Great Model Railroads* stories will now be regular offerings in *Model Railroader*.

Model Railroad Planning had a loyal following for more than a quarter of a century. Editing it was certainly one of the highlights of my professional career. I will always be indebted to MR and Kalmbach Publishing for breaking tradition by appointing an outsider to produce one of MR's special editions.

But we must adapt to the changing times, and I believe we have made a positive step forward by integrating MRP and GMR into MR. We look forward to hearing from readers about the change. MR

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